CHAPTER 4

ALTERNATIVES

CHAPTER 4

PROJECT ALTERNATIVES

4.0 INTRODUCTION

This EIR provides a discussion of alternatives to the proposed project as required by the California Environmental Quality Act Guidelines. According to the CEQA guidelines, alternatives should include realistic measures to attain the basic objectives of the proposed project and provide means for evaluating the comparative merits of each alternative. In addition, though the range of alternatives must be sufficient to permit a reasoned choice, they need not include every conceivable project alternative (CEQA Guidelines, §15126.6(a)). The key issue is whether the selection and discussion of alternatives fosters informed decision making and public participation.

The purpose of the alternatives is to reduce or substantially lessen any significant impacts associated with implementation of a proposed project (CEQA Guidelines Section 15126.6(b)). The environmental analyses completed in Chapter 3 indicates that the proposed project is expected to result in significant environmental issues on air quality and hazards. Only the air quality impacts remain significant following mitigation. The ISOCI facility is involved in managing hazardous wastes and there is no alternative that could completely eliminate all concerns and potential risks associated with the operation of the facility. Safety design features and mitigation measures, such as warning alarms, contingency plans, emergency response equipment, employee training, and regular inspections reduce the likelihood and magnitude of possible impacts, but would not eliminate all potential for impact.

The objectives of the proposed project are as follows:

- Continue the treatment and storage of hazardous wastes to allow the continued recycling of used oil and storage of used antifreeze.
- Modify manufacturing processes to increase operational efficiency.
- Increase existing tank and container storage capacities.
- Expand facility operational capabilities to include waste water treatment, glycol distillation, oil ultra-filtration, fuel blending, solids stabilization, and increased loading/unloading railcar operations.
- Accept additional waste streams at the ISOCI facility. This includes both California and RCRA regulated hazardous waste.
- Allow for the phased implementation of remedial measures consistent with maintenance of health and safety of workers and the general public.

- Discharge treated wastewater into the public sewer system.

The alternatives presented in this chapter involve modifications to aspects of the specific equipment or operations of the proposed project that would still allow ISOCI to meet some or most of the project objectives. Section 15126.6(f) of the CEQA Guidelines stipulates that the range of alternatives required in an EIR is governed by a rule of reason in that the EIR must discuss only those alternatives "necessary to permit a reasoned choice" and those that could feasibly attain most of the basic objectives of the proposed project.

The project alternatives were developed by modifying one or more components of the proposed project taking into consideration the project's limitations as to space, permitting requirements, and nature of the operation. Unless otherwise stated, all other components of each project alternative are identical to the proposed project. Both the identified feasible project alternatives as well as the alternatives rejected as infeasible are discussed further below. The alternatives reviewed in the EIR include: (1) the no-project alternative; (2) alternative site location; and (3) reduced operations alternative. These alternatives and their impacts, in comparison to the operation of the ISOCI facility (as currently proposed), are evaluated below.

4.1 ALTERNATIVES REJECTED AS INFEASIBLE

In accordance with CEQA Guidelines §15126.6(c), a CEQA document should identify any alternatives that were considered by the lead agency, but were rejected as infeasible during the scoping process and briefly explain the reason underlying the lead agency's determination.

Section 15126.6(c) also states that among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (1) failure to meet most of the basic project objectives; (2) infeasibility; or (3) inability to avoid significant environmental impacts. Furthermore, CEQA Guidelines §15126.6(f)(2)(B) indicates that if the lead agency concludes that no feasible alternative locations for the project exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR.

Alternative technologies for recycling used oil were considered and rejected because the environmental impacts associated with such technologies would be higher than the current ISOCI facility and proposed facility modifications. Two other oil recycling facilities in California use conventional refining methods (e.g., distillation dehydration followed by vacuum distillation) to re-refine the oil and separate impurities. Equipment associated with this technology includes refinery-type structures, including columns and vessels, and requires additional heat sources to operate. Air emissions associated with re-refining technologies are higher than ISOCI operations due the need for additional combustion sources (heaters and boilers), the increased temperature of the oil streams that lead to additional VOC emissions, and the increase in fugitive components (pumps, valves, and flanges) in the distillation columns that generate additional VOC emissions.

Energy requirements (primarily natural gas to operate additional heaters/boilers) are also higher with re-refining technologies. The potential hazards associated with re-refining technology are higher because of the additional equipment and additional heat sources. Therefore, the use of alternative technologies was rejected because of the additional environmental impacts associated with its use.

4.2 ALTERNATIVE 1 - NO PROJECT ALTERNATIVE

The No Project Alternative for a project EIR corresponds to no development and no operations, or simply to no changes from the present conditions at the subject site. This alternative scenario is readily identifiable and understandable when the project under analysis in the EIR is for a proposed new development or facility, or even the proposed expansion of an existing facility.

The proposed project differs in that it involves the permitting of an already existing facility and operation that, except for the RCRA Part B Permit, has all its necessary permits and authorizations. Therefore, the condition that "precedes the project," as discussed in CEQA Guidelines Section 15126.6(e)(3)(B), cannot as readily be defined.

Under the No Project Alternative, the following actions are assumed to occur: (1) denial of ISOCI's Part B permit application and consequent termination of the Interim Status Document under which ISOCI is currently operating the facility; (2) cessation of all hazardous waste storage and treatment activities at the ISOCI site that would require a Part B permit; (3) delivery of hazardous wastes currently and potentially managed at the ISOCI site to other locations for management and/or disposal; and (4) re-use of the ISOCI site for another heavy industrial use. It is assumed that the ISOCI site would remain zoned for heavy industrial uses (M3-1) by the City of Los Angeles, given the surrounding industrial land uses.

Under the No Project Alternative, hazardous wastes currently and potentially received and recycled at the ISOCI facility would have to be taken elsewhere for treatment since these wastes cannot be disposed of at a landfill. These wastes would most likely go to other hazardous waste facilities such as DeMenno/Kerdoon located in Compton, California, and Evergreen located in Newark, California for treatment. These two facilities handle a large portion of recycled oil in California.

Under the No Project Alternative, it is assumed that the ISOCI facility would be decommissioned, and all structures and equipment would be removed. Remediation/restoration would be required, if necessary, at the facility which could include soil remediation; however, all known contamination at the ISOCI site has been removed. The need for, and type of, remediation required has not yet been determined at this time. Nonetheless, remediation of the site, if necessary, will occur regardless of whether the Part B permit is issued.

4.2.1 Aesthetics

Implementation of the No Project Alternative is not expected to significantly change the aesthetics of the ISOCI facility site. The site is zoned M3-1 for heavy industrial uses and the zoning of the site is not expected to change since the site is surrounded by other industrial uses. It is assumed that another industrial facility would be constructed at the site because of the adjacent railroad corridors and heavy industrial land uses surrounding the facility. The aesthetics of the site would change to the extent that storage tanks would probably not be visible from the site, although this would depend on the type of industrial facility developed. The dominant views of the site expected to remain are the fences and buildings/structures associated with industrial uses. The aesthetic impacts related to new manufacturing or operating equipment would vary depending on the industry and type of equipment that would be constructed at the site. These impacts cannot be quantified at this time since the type of facility that would be constructed is unknown.

The project impacts on aesthetics were considered to be less than significant. The aesthetics impacts of the No Project Alternative are also expected to be less than significant.

4.2.2 Air Quality

The No Project Alternative would eliminate the existing on-site emissions associated with the proposed ISOCI project. The estimated emissions reductions are outlined in Table 4-1.

TABLE 4-1

Air Emissions Reductions Associated With the No-Project Alternative (pounds per day)

Equipment	CO	VOC	NOx	SOx	PM10
On-site Emissions					
Boilers/Heaters	18.26	2.59	24.15	0.23	2.94
Backup Generator	0.49	0.18	2.25	0.03	0.16
Storage Tanks	-	5.91	-	-	-
Loading/Unloading Racks	-	0.00	-	-	-
Fugitive Emissions(1)	-	25.83	-	-	-
Estimated Facility Emission Reductions(1) (i.e., Existing On-Site Emissions)	18.75	34.51	26.40	0.26	3.10

(1) Assumes existing onsite emissions are eliminated. Total may not add due to rounding.

Industrial activities would remain at the site. Most heavy industrial facilities generate emissions through manufacturing activities and/or mobile sources, e.g., employee vehicles, trucks and rail cars. The level of air emissions generated by an industrial

facility cannot be determined until the type of facility has been defined. Therefore, the emission increases are considered speculative at this time. New facilities would be expected to comply with the applicable rules and regulations of the South Coast Air Quality Management District as stated in the South Coast Air Quality Management District Rules and Regulations document, which include the use of Best Available Control Technology for emission control and the requirement that all emission increases be offset. There also may be unknown air quality impacts resulting from the construction of new facilities at the former ISOCI location.

Closure of the ISOCI facility may result in revised transport distances for hazardous waste treatment and disposal which would increase transport truck emissions in the region. The locations of the two largest facilities in California that could accept similar wastes include DeMenno/Kerdoon, located about 10 miles south of ISOCI in the City of Compton, and Evergreen, located about 250 miles north of ISOCI in the City of Newark. For purposes of analysis, it will be assumed that 20 percent of the wastes currently handled by ISOCI will be transported to Evergreen and that 80 percent of the wastes currently handled by ISOCI will be transported to DeMenno/Kerdoon. Based on this assumption, the estimated average truck trip would increase to about 73 miles (see Appendix E for details on the average truck trip calculation).

Emission estimates for the increased travel distance were calculated using the same assumptions as for the proposed project. The emission estimates are provided in Table 4-2. As shown in Table 4-2, the No-Project Alternative would be expected to result in higher off-site emissions associated with the transport of hazardous waste by trucks. Based on Table 4-2, the No-Project Alternative would have higher off-site emissions associated with truck transport than the proposed project for all criteria pollutants. The emissions of nitrogen oxides and particulate matter would exceed the South Coast Air Quality Management District's significance thresholds and would be considered significant. Additional emissions could be expected associated with rail car transport to other facilities.

There also is a potential for increases in emissions associated with existing hazardous waste facilities due to increases in wastes received at existing facilities. The impact of these emissions would vary from site to site and cannot be quantified at this time.

The No-Project Alternative would eliminate the emissions of toxic air contaminants from the ISOCI facility, providing an air quality and health benefit to the area surrounding the facility. Alternative 1 would eliminate the non-carcinogenic and carcinogenic health risk to the Reasonable Maximum Exposed Worker, Reasonable Maximum Exposed Resident, and sensitive populations associated with the operation of the ISOCI facility. However, this alternative would increase emissions from diesel trucks and locomotive engines due to the increase in mileage, thus generating a potential significant air quality and health impact to the South Coast Air Basin as a whole.

TABLE 4-2

Air Emissions Increases Associated With Increased Travel Distances Under the "No-Project" Alternative (pounds per year)

Equipment	CO	VOC	NOx	SOx	PM10
No Project Off-site Emissions:					
Transport Trucks	277.84	40.35	388.50	3.60	307.15
Proposed Project Off-site Emissions:					
Transport Trucks	95.68	13.90	133.78	1.24	106.25
Emission Increase Under the No-Project Alternative					
Emission Increase Under the No-Project Alternative	182.16	26.45	254.72	2.36	200.90
SCAQMD Threshold	550	55	55	150	150
Significant?	NO	NO	YES	NO	YES

This alternative may generate impacts at other hazardous waste treatment facilities as the throughput volume is increased and potential expansions are implemented to accommodate the materials previously treated at ISOCI. The impacts on human health at other facilities could be greater than those associated with ISOCI, depending on the distance to residential areas and sensitive populations.

The No Project Alternative would eliminate on-site emissions associated with waste treatment activities at the ISOCI facility and the related health impacts. See Table 4-1 for the emission reductions associated with the existing ISOCI facility. Heavy industrial activities would remain at the site. Most heavy industrial facilities generate emissions through manufacturing activities and/or mobile sources, e.g., cars, trucks, and rail cars (SCAQMD, 1993). The magnitude of the emission increases would depend on the type of facility developed, which is speculative at this time. New facilities would be expected to comply with the applicable rules and regulations of the South Coast Air Quality Management District as stated in their Rules and Regulations document, which include the use of Best Available Control Technology for emission control, the requirement that all emission increases be offset, and the requirement that toxic air contaminant emissions result in cancer risks under 10 per million and a hazard index of less than 1.0.

4.2.3 Geology and Soils

The closure of the ISOCI facility would not alter existing impacts to geology and soils. It is assumed that all structures associated with ISOCI would be removed under this alternative. It is assumed that industrial facilities would still be located at the site since the site is zoned for industrial use and structures would still be subject to impacts from a major earthquake. All new structures would be required to comply with the Uniform Building Code requirements. This alternative may have incremental seismic hazards,

depending on the locations of the facilities that would be receiving the additional quantities of hazardous wastes previously processed by ISOCI. Impacts could be associated with soil remediation, if determined necessary. Impacts to geology and soils are expected to remain less than significant under this alternative.

4.2.4 Hazards and Hazardous Materials

The No Project Alternative would eliminate the hazards associated with the ISOCI facility. The hazard impacts associated with the ISOCI facility were considered to be less than significant, following mitigation.

Trucks would no longer travel to the ISOCI site; however, there could be a greater potential for accidents involving hazardous materials/waste delivery trucks due to the increase in the average transport distances. The estimated truck accident rate for waste deliveries to facilities other than ISOCI is estimated in Table 4-3. Data in the Table 4-3 assume that 100 trucks per day transport wastes to DeMenno/Kerdoon (80 percent) and Evergreen (20 percent). The trucks are assumed to travel an average of 70 miles on freeways and three miles on city streets.

TABLE 4-3

TRUCK ACCIDENT RATE
NO PROJECT ALTERNATIVE

Type of Road	Accident Rate per million miles	Miles Traveled per Year	Accident Rate Per Year
Freeways	0.8	2,555,000	2.0
City Streets	2.1	109,500	0.2

Based on Table 4-3, the accident rates are expected to be about two per year. An estimated 20 percent of accidents involving hazardous materials results in spills (Federal Emergency Management Agency, et al., 1993). Therefore, the accident rate that involves a spill is estimated to be about 0.44 per year (2.2 x 0.20) or about one accident in 2.3 years, which can be compared to the proposed project of about one accident in 5.9 years.

There also may be unknown impacts resulting from the continued use of the ISOCI site for industrial purposes and associated construction to replace the ISOCI facility. The level of impacts would depend on the type of facility constructed and is considered speculative since the type of facility constructed is unknown. Most manufacturing and heavy industrial facilities require the use of some type of chemicals and hazardous materials. Any new facility would be required to comply with the various hazardous materials regulations including the preparation of a Hazardous Material Business Plan, Risk Management and Prevention Plan for acutely hazardous materials, etc.

This alternative may generate impacts at other hazardous waste treatment facilities as the throughput volume is increased and potential expansions are implemented to accommodate the hazardous wastes previously recycled and treated at ISOCI. Compliance with the DTSC rules and requirements, RMP regulations and various hazardous waste/materials rules and regulations is expected to minimize the impacts of this alternative to less than significant.

4.2.5 Hydrology and Water Quality

The proposed ISOCI project would connect the facility to the sewer system and would generate about 84,600 gallons of wastewater per day. The No-Project Alternative would eliminate the wastewater generated by the ISOCI facility. Another industrial facility at the site would most likely generate additional wastewater. The magnitude of the wastewater generated would depend on the type of industry that was developed. Using a wastewater generator rate for small commercial and industrial facilities (City of Los Angeles, 1998), a predicted wastewater generation rate of 9,400 per day of wastewater would be expected. The quality of the wastewater discharged from the site could vary greatly depending on the type of industry to use the site; therefore, these impacts are speculative. Incremental wastewater could be generated by other hazardous waste facilities that would treat the wastes formerly handled at ISOCI. The impacts associated with wastewater discharge are expected to be less than significant assuming that the industrial facilities remain in compliance with their industrial wastewater discharge permits.

This alternative may generate impacts at other hazardous waste treatment facilities as the hazardous waste throughput volume is increased and potential expansions are implemented to accommodate the materials previously recycled at ISOCI. Unknown impacts may result from the likely industrial use (and related construction) to replace the ISOCI facility.

Proposed operations at ISOCI will demand approximately 15,000 gallons of water per month or about 500 gallons per day. The water consumption associated with the operation of the ISOCI facility would cease under this alternative. There would be water consumption associated with a new industrial facility at the site. The magnitude of the water demand would depend on the type of industry that was placed on the site. The water consumption at the site associated with a new industrial facility is considered to be speculative at this time.

The ISOCI facility is not located in a flood hazard area so no flood impacts to the ISOCI facility or another facility at the site would be expected. Storm water is controlled onsite at the ISOCI facility through containment structures. Under Alternative 1, the containment structures would be removed. The storm water impacts of a new industrial facility at the ISOCI site is considered to be speculative at this time. However, compliance with storm water rules and regulations is expected to minimize impacts to less than significant.

4.2.6 Land Use and Planning

Implementation of the No Project Alternative is not expected to change the land use impacts associated with the proposed project site. The site is zoned for heavy industrial uses (M3-1) and the zoning of the site is not expected to change since the surrounding areas also are zoned for and contain heavy industrial land uses. Further, due to the location of railroad tracks adjacent to the ISOCI facility, industrial land uses are the only acceptable land use for the site.

Closure of the ISOCI facility would have a negative impact on the goals of the Los Angeles County Hazardous Waste Management Plan. The Plan (Los Angeles County, 1988) and the regional update to the plan (SCHWMA, 1994) indicate that the region does not have sufficient capacity to treat and manage the hazardous waste generated in Southern California. Closure of the ISOCI facility would further reduce the region's ability to manage its hazardous waste stream by eliminating a hazardous waste treatment facility. This alternative could result in additional transport of hazardous wastes outside of the region (see discussion below under "Transportation/Circulation").

There could be potential land use impacts associated with expansion, if required, at other hazardous waste facilities. For example, the closest resident to the DeMenno/Kerdoon facility is located across the street (DTSC, 1995). Expansion could require initiation of the Tanner process, if a local land use approval was necessary. Both DeMenno/Kerdoon and Evergreen have received hazardous waste facility permits from DTSC.

The land use impacts under Alternative 1 are expected to remain less than significant.

4.2.7 Noise

Under the No Project Alternative, operations at ISOCI including the processing equipment, and truck and rail traffic would cease. This would eliminate all noise sources associated with construction at ISOCI and ISOCI facility operations, thus decreasing impacts associated with noise (see Chapter 3, Section 3.8 - Noise). Noise from remediation activities may still occur, if remediation is determined to be necessary.

The overall noise levels in the area are not expected to change significantly with the closure of ISOCI. Traffic noise on Soto Street was determined to be about 75 decibels with or without the proposed project. Closure of the ISOCI site would not reduce noise associated with traffic. Noise associated with rail traffic is expected to remain unchanged because of the location of the facility with respect to local rail yards and railroad tracks, including the Metrolink. The continued use of the site as an industrial facility would still be expected to generate employee vehicles as well as delivery trucks. Using estimates from the Institute of Transportation Engineers, an average of 15.620 employee trips per acre of heavy industrial land can be expected (ITE, 1987). Therefore, a 2.7 acre industrial facility would be estimated to generate about 42 employee vehicle trips per day. No decrease in noise associated with employee vehicles is expected. The noise related to manufacturing or operating equipment and trucks would vary depending on the

industry and type of equipment that would be constructed at the site. These noise impacts cannot be quantified at this time since the type of facility that would be constructed is unknown.

Alternative 1 may create incremental noise increases from increased activity (trucks) at the site, and may be associated with impacts at other hazardous waste treatment facilities, e.g., DeMenno/Kerdoon and/or Evergreen. Facilities located closer to residential areas have the potential for higher noise impacts than the proposed project. Compliance with applicable noise ordinance would minimize noise impacts to less than significant.

4.2.8 Public Services

The elimination of operations at ISOCI would eliminate the need for police and fire service. Although Alternative 1 would result in the closure of the ISOCI facility, it is likely that the property would be acquired for some heavy industrial purpose and would require police and fire service. The proposed project impacts on public services were considered to be less than significant and it is expected that the impacts would remain less than significant under Alternative 1.

4.2.9 Transportation and Traffic

Closure of the ISOCI facility would eliminate the vehicle trips associated with employees (30) and the truck trips associated with the proposed project's delivery of hazardous waste (approximately 100 trucks per day). The continued use of the site for industrial activities is expected to generate additional employees and truck traffic. Using estimates from the Institute of Transportation Engineers, an estimated 42 employee vehicle trips per day would be expected for a heavy industrial 2.7 acre site (ITE, 1987). The traffic impacts associated with worker vehicles from a new industrial facility would be expected to be similar to the proposed project (less than significant). The actual level of traffic generated would depend on the type of industrial facility that was developed at the site.

If the ISOCI facility were to cease operations, trucks would be required to transport hazardous wastes to other facilities. This alternative has the potential to increase traffic in other areas of the state, as well as out of state. As shown in Appendix E, the closure of the ISOCI site is estimated to increase the overall average truck trip to about 73 miles as compared to the proposed project of 22 miles per trip. Transportation to distant locations would increase traffic impacts as well as transportation related emissions. Traffic and circulation impacts at other hazardous waste facilities are expected to be less than significant, if the facilities operate within their permitted capacity.

4.2.10 Utilities and Service Systems

The proposed ISOCI project would connect the facility to the sewer system and would generate about 84,600 gallons of wastewater per day. As discussed in 4.1.6 above, the No-Project Alternative impacts associated with wastewater discharge are expected to be

less than significant assuming that the industrial facilities remain in compliance with their industrial wastewater discharge permit.

4.3 ALTERNATIVE 2 - FACILITY RELOCATION

Alternative 2 would involve relocating the ISOCI facility to a new site. This would include denial of ISOCI's Part B permit application and consequent termination of the Interim Status Document under which ISOCI is currently operating. All waste treatment activities at the current ISOCI site would cease. Development of a new ISOCI facility at a different location would include the purchase or leasing of property, permitting and engineering, construction (probable major improvements to an existing facility), and start-up activities, all of which would require significant lead time. It is also likely that the ISOCI site would be re-used for another heavy industrial use, given the surrounding industrial uses and the site's land use and zoning designations by the City of Los Angeles as M3-1 (heavy industrial). This would involve conversion of the existing ISOCI facilities and equipment to some other industrial use.

Under Alternative 2, the wastes currently and potentially received and managed at the ISOCI facility would temporarily be taken elsewhere for treatment until the new ISOCI facility was ready for operation.

The site for a new facility would be required to comply with the Los Angeles County Hazardous Waste Management Plan siting criteria and other aspects of what is commonly known as the Tanner siting process. The Los Angeles County Hazardous Waste Management Plan indicates general areas potentially suitable for hazardous waste treatment facilities in industrial areas of Wilmington, Carson, Torrance, El Segundo, Santa Fe Springs, La Mirada, Baldwin Park, Azusa, City of Industry, and Walnut, and the Santa Clarita and the Antelope Valleys. Other appropriate areas include industrial areas south of downtown Los Angeles such as the Cities of Vernon and Commerce; industrial areas along rail lines from northeast Los Angeles into San Fernando Valley, and industrial areas in the northwest portion of Orange County. For purposes of analyzing general environmental impacts, three hypothetical alternative sites located in different industrial areas of Los Angeles County are evaluated to determine potential impacts at general locations within the county, including sites located in Antelope Valley, the City of Industry, and Wilmington.

While a general discussion of this alternative is provided to present a full analysis of alternatives, it is doubtful that an alternative site could be found within Los Angeles County where permits could be secured and land could be found that has a greater distance to residential areas than the current site. The feasibility of securing all necessary permits is remote given the fact that no new hazardous waste facilities have been permitted in Southern California in the last 20 years. The siting of a new facility would trigger implementation of the Tanner Act regulations (California Health and Safety Code Section 25199.7) which require extensive public notification and involvement. As stated in the South California Hazardous Waste Management Plan (SCHWMA, 1994), "the facility siting process is a long and arduous one, with little assurance of success."

4.3.1 Aesthetics

Relocation of the ISOCI facility is not expected to significantly change the aesthetics of the ISOCI facility site. The site is zoned M3-1 for heavy industrial uses and the zoning of the site is not expected to change since the site is surrounded by other industrial uses. The aesthetics of the site would change to the extent that storage tanks would probably not be visible from the site, although this would depend on the type of industrial facility developed. The dominant views of the site expected to remain are the fences and buildings/structures associated with industrial uses. The aesthetic impacts related to manufacturing or operating equipment would vary depending on the industry and type of equipment that would be constructed at the site, but the site would still contain industrial facilities under this alternative. These impacts are expected to be less than significant because of the industrial nature of the area.

Impacts of the ISOCI facility at a new location would be dependent upon the location, zoning, and nature of the surrounding environment of a new facility site. An existing site would need to be located in an industrial area where it is unlikely that there would be aesthetic impacts.

4.3.2 Air Quality

Alternative 2 has the potential to generate greater emissions due to transport trucks having to travel greater distances. The distance to generators of waste was calculated for the three hypothetical alternative sites (see Appendix E) using the same assumptions as those used to calculate emissions from the proposed project. The average truck trip for each of the hypothetical alternative sites was calculated and determined to be 30 miles per trip for a facility in Wilmington, 43 miles per trip for a facility in Antelope Valley, and 29 miles per trip for a facility in the City of Industry. The average truck trip for the hypothetical alternative sites can be compared to the proposed project of 22 miles per trip. A large amount of hazardous waste are generated in Los Angeles County and the ISOCI facility is centrally located in the County so that transportation distances to the facility are minimized.

The air quality impacts associated with specific locations may differ due to factors such as meteorology, ambient air quality and the location of residents and sensitive populations. Construction emissions associated with the building of a new facility would be substantially greater than those for modifications to the existing facility since the entire site would need to be built as opposed to modifications to the existing facility. Construction impacts are expected to be significant under this alternative. There may also be unknown air quality impacts associated with the industrial use (and associated construction) of the former ISOCI site.

Emissions of criteria pollutants from trucks were calculated assuming that 100 trucks travel the various distances determined above to their respective facilities and compared to the proposed project (see Table 4-4). As shown in Table 4-4, the criteria emissions from trucks under the proposed project are less than any of the hypothetical alternative

sites. Detailed emission calculations are provided in Appendix E. All of the alternatives would exceed the South Coast Air Quality Management District significance criteria for nitrogen oxides and would be considered significant. In addition, siting a facility in the Antelope Valley would exceed the significance threshold for PM10 due to the increased mileage that trucks would need to travel.

TABLE 4-4

Air Emissions From Trucks Associated with Hypothetical Alternative Sites (pounds per day)

Equipment	CO	VOC	NOx	SOx	PM10
Total Emissions					
Proposed Project Emissions(1)	95.68	13.90	133.78	1.24	106.25
Wilmington(2)	128.20	18.62	179.27	1.66	141.26
Antelope Valley(2)	183.39	26.63	256.43	2.38	199.06
City of Industry(2)	115.96	16.84	162.14	1.50	127.77
SCAQMD CEQA Thresholds	550	55	55	150	150

(1) See Table 3.3-8. Includes truck emissions and fugitive dust from truck traffic.
(2) See Appendix E.

Emissions at a new facility would be less than those expected for the ISOCI facility. A new facility would be required to comply with the South Coast Air Quality Management District New Source Review requirements (South Coast Air Quality Management District Rule XIII) which requires facilities to fully offset emission increases, requires new facilities to install the Best Available Control Technology, and prohibits the construction of new facilities with a cancer risk in excess of 10 per million.

Alternative 2 would probably not eliminate the potentially significant non-carcinogenic health impacts for acute and chronic exposures as these are associated with railcar emissions. Alternative 2 would be expected to generate higher toxic air contaminant emissions associated with the combustion of diesel fuel in trucks and railcars. Therefore, these emissions are expected to remain significant.

Relocation of the ISOCI facility would transfer the non-carcinogenic and carcinogenic health risk associated with the operation of the ISOCI facility to another location. Impacts at the other location would be dependent upon the location of residential areas and sensitive populations. If the residential areas were located closer to the facility, the health impacts would be expected to be greater. If residential areas were located further away from the facility, the health impacts would be expected to be less.

The construction and operation of a new industrial facility at the ISOCI site could generate emissions that would have health impacts. New facilities would be expected to comply with the applicable rules and regulations of the South Coast Air Quality Management District as stated in their Rules and Regulations document, which include the use of Best Available Control Technology for emission control, the requirement that all emission increases be offset, and the rules that regulate the release of toxic air contaminants, as well as other regulations regarding the use of hazardous materials and the generation of hazardous waste. A Health Risk Assessment would be required to determine the magnitude of health impacts at another site.

4.3.3 Geology and Soils

Under Alternative 2, impacts would be greatly dependent on the location of faults and other seismic hazards in relation to the location of the new ISOCI facility. Per the requirements of the Los Angeles County Hazardous Waste Management Plan, new facilities must meet certain siting criteria, which includes the requirement that no new facilities can be sited within 2,000 feet of an active fault. The current ISOCI facility is expected to comply with the siting criteria of the County Hazardous Waste Management Plan.

Unknown impacts resulting from the likely industrial use (and associated construction) to replace the ISOCI facility may occur. All new structures would be required to comply with the Uniform Building Code Zone 4 requirements which should minimize the impacts associated with earthquake hazards to less than significant.

4.3.4 Hazards and Hazardous Materials

Alternative 2 would eliminate the hazards associated with the existing ISOCI facility at its current location. The hazard impacts associated with the ISOCI facility were considered to be less than significant, following mitigation. These (insignificant) impacts would be transferred to another location.

Alternative 2 may create a greater hazard associated with accidents involving trucks hauling wastes due to the likely increases in transport distances. Table 4-5 compares the risk of upset associated with truck accidents from the proposed project with the hypothetical alternative sites. The estimated accident rate associated with trucks traveling to the hypothetical alternative sites would be greater than the proposed project.

The likelihood of an onsite accident or release at a new location would be similar to that of the existing ISOCI facility and would be expected to be less than significant, assuming that no residential areas are located adjacent to the site. The actual hazards would depend on the location of the facility with respect to sensitive populations, surrounding facilities, and response capabilities.

TABLE 4-5

TRUCK ACCIDENT RATE
ALTERNATIVE SITES

Type of Road	Accident Rate per million miles	Miles Traveled per Year	Accident Rate Per Year
Proposed Project			
Freeways	0.8	803,000	0.64
City Streets	2.1	109,500	0.23
Total Risk			0.87
Wilmington Site			
Freeways	0.8	1,095,000	0.88
City Streets	2.1	109,500	0.23
Total Risk			1.11
Antelope Valley Site			
Freeways	0.8	1,569,500	1.26
City Streets	2.1	109,500	0.23
Total Risk			1.49
City of Industry Site			
Freeways	0.8	1,058,500	0.85
City Streets	2.1	109,500	0.23
Total Risk			1.08

There may also be unknown impacts resulting from the continued use of the ISOCI site for industrial purposes and associated construction to replace the ISOCI facility. The level of impacts would depend on the type of facility constructed. Most manufacturing and heavy industrial facilities require the use of some type of chemicals and hazardous materials. If large quantities of concentrated (or pure) chemicals were stored on-site and transported to the site, there would be the potential for on-site and off-site hazards, i.e., toxicity and fire. Any new facility would be required to comply with the various hazardous materials regulations including the preparation of a Hazardous Materials Business Plan, a Risk Management and Prevention Plan for acutely hazardous materials, etc.

4.3.5 Hydrology and Water Quality

The water consumption associated with the operation of the ISOCI facility at the current site would cease under this alternative. In addition, there would be water consumption and possibly wastewater discharges associated with a new industrial facility at the site. The magnitude of these increases would depend on the type of industry that was placed on the site and is speculative at this time. Using estimates from the City of Los Angeles,

an estimated wastewater generation rate of 9,400 per day of wastewater would be expected which is comparable to the amount of water used by ISOCI.

Alternative 2 has the potential for construction impacts due to erosion and sedimentation if development of a new ISOCI facility requires grading, particularly if a previously undeveloped site is used. New facility operational impacts would be similar to those of ISOCI's operations. A new site would be required to comply with the siting criteria of the Los Angeles County Hazardous Waste Management Plan, be located in an area that avoids flood hazards, aqueducts, reservoirs, ground water and aquifers, and have secondary containment. Compliance with the siting criteria should minimize impacts to less than significant.

4.3.6 Land Use and Planning

Implementation of this alternative is not expected to change the land use associated with the ISOCI facility. The site is zoned M3-1 for heavy industrial uses and the zoning of the site is not expected to change since the surrounding areas also are industrial.

Under this alternative, there could be difficulty in achieving consistency with existing land uses when developing a new facility, as well as in establishing consistency with planned/zoned uses and related land use permitting for a new facility or for a major facility upgrade. The feasibility of securing all necessary permits is remote given the fact that no new hazardous waste facilities have been permitted in Southern California in the last 20 years. Based on this experience and the difficulty in siting new hazardous waste facilities, the land use impacts are considered to be potentially significant.

This alternative would not have a negative impact on the County's Hazardous Waste Management Plan since it is assumed that a new facility would have the same capacity and treat the same types of waste as the current ISOCI facility. A new facility would be required to comply with the siting requirements of the County Hazardous Waste Management Plan which includes: sufficient distances from residences, lack of environmentally sensitive habitat areas, proximity to major transportation routes, and industrial zoned property, among others.

4.3.7 Noise

Alternative 2 would have potentially significant noise impacts related to construction, facility operations and transportation at a new or upgraded site. These impacts would be greatly dependent on the locations of sensitive populations near the new facility, and/or on key transportation corridors and whether or not rail service would be utilized. There may also be unknown impacts resulting from the likely industrial use (and associated construction) to replace the ISOCI facility. Construction noise sources at a new site are expected to be similar to the noise sources identified in Table 3.8-3.

This alternative would eliminate the noise associated with the treatment activities (primarily from processing equipment) at the existing ISOCI facility, as well as the noise

from the trucks, rail cars and employee vehicles that visit the site. However, the continued use of the site as an industrial facility would still be expected to generate employee vehicles as well as delivery trucks and rail cars. An estimated 34 employee vehicle trips would be estimated for a heavy industrial facility of 2.7 acres (ITE, 1987). Therefore, no decrease in noise associated with employee vehicles is expected at the current ISOCI site. Further, noise levels in the vicinity of the ISOCI site are not expected to substantially change because it is predominantly generated by trucks, vehicles and railroad traffic on adjacent streets and railroad tracks. The noise related to manufacturing or operating equipment at the current ISOCI site would vary depending on the industry and type of equipment that would be constructed at the site. These noise impacts cannot be quantified at this time since the type of facility that would be constructed is unknown.

4.3.8 Public Services

The elimination of operations at ISOCI would eliminate the need for police and fire services within the City of Los Angeles. Although Alternative 2 would result in the closure of the ISOCI facility, it is likely that the property would be acquired for similar or heavy industrial purposes and would require police and fire services. Police and fire services would be required at the alternative site locations. Most of the industrial areas identified in the Los Angeles County Hazardous Waste Management Plan (Los Angeles County, 1988) are located in urbanized areas where police and fire service is available. The exception to this could be that hazardous materials teams from the fire department are located in heavy industrial areas with a large concentration of facilities, e.g., Vernon and the City of Los Angeles, but could be missing in remote areas of Los Angeles County, e.g., the Antelope Valley, thus generating potentially significant impacts on fire services.

4.3.9 Transportation and Traffic

Relocation of the ISOCI facility would eliminate the traffic associated with current employees and the truck trips associated with the delivery of hazardous waste at the current location. However, the continued use of the site for industrial activities is expected to generate additional employees. Using estimates from the Institute of Transportation Engineers, an estimated 42 employee vehicle trips per day would be expected for a heavy industrial 2.7 acre site (ITE, 1987). The traffic analysis completed for the ISOCI proposed project assumed 30 full time employees with 100 truck visits to the site per day. The traffic analysis assumes that all employees arrive and depart from the site during peak traffic hours and that ten percent of all trucks arrive during the peak hours. Therefore, the traffic impacts associated with this alternative are expected to be similar to the traffic impacts identified for the proposed project (see Table 3.10-2) which predicted that no significant traffic impacts (based on the level of service analysis) would be expected.

Alternative 2 may have a greater potential to impact surface and freeway transportation due to the predicted increase in transport distances. As discussed above, The average truck trip for each of the hypothetical alternative sites was determined to be 33.5 miles

per trip for a facility in Wilmington, 47.9 miles per trip for a facility in Antelope Valley, and 30.0 miles per trip for a facility in the City of Industry (see Appendix E). The average truck trip for the hypothetical alternative sites is greater than the proposed project of 22 miles per trip. Transportation to distant locations would increase traffic impacts, as well as transportation related emissions.

4.3.10 Utilities and Service Systems

The proposed ISOCI project would connect the facility to the sewer system and would generate about 84,600 gallons of wastewater per day. As discussed in 4.2.6 above, the impacts associated with wastewater discharge at alternative sites are expected to be less than significant assuming that the industrial facilities remain in compliance with their industrial wastewater discharge permit.

4.4 ALTERNATIVE 3 - REDUCED OPERATIONS

Alternative 3 would involve reducing current operations from the levels in the proposed project to those that currently exist. This alternative assumes that no expansion of the ISOCI facility would occur and that the ISOCI facility would operate at the current levels. Chapter 3 of this ~~draft~~ *final* EIR describes the environmental setting of the ISOCI facility. The impacts associated with this alternative would be similar to the baseline conditions described in Chapter 3.

4.4.1 Aesthetics

The reduced operation alternative would not be expected to change the aesthetics of the ISOCI facility site from that which currently exists. The site is zoned M3-1 for heavy industrial uses and the zoning of the site is not expected to change since the site is surrounded by other industrial uses. The dominant views of the site expected to remain are the fences and buildings/structures (mostly tanks) associated with site operations. These impacts are considered less than significant due to the industrial nature of the area.

4.4.2 Air Quality

Under the reduced operations alternative, on-site and off-site emissions associated with waste treatment at the ISOCI facility would remain the same as those that currently exist (see Table 4-6). Emissions from current operations of the ISOCI facility are under the South Coast Air Quality Management District thresholds for all pollutants except NOx. The facility would be expected to continue to comply with the applicable rules and regulations of the South Coast Air Quality Management District.

Table 4-6 below summarizes the estimated emissions from the facility as it currently exists and compares them to those that would be emitted under the reduced project alternative. As shown in Table 4-6, a reduction in operations at the ISOCI facility would not substantially reduce on-site emissions of CO, NOx, SOx and PM10. Alternative 3 would result in fewer employee vehicles and truck visits to the site so that mobile sources

would be reduce from the proposed project. The emissions associated with Alternative 3 are expected to be less than significant for sulfur oxides, carbon monoxide, respirable particulate matter, and volatile organic compounds and remain significant for NOx emissions.

TABLE 4-6

ISOCI OPERATIONS EMISSIONS SUMMARY
REDUCED PROJECT ALTERNATIVE
(pounds per day)

Equipment	CO	VOC	NOx	SOx	PM10
Total Current On-Site Emissions[(1)]	18.75	34.51	26.40	0.26	3.10
Total Proposed Project On-Site Emissions[(2)]	19.39	63.91	27.03	0.90	3.73
Total Current Off-Site Emissions[(1)]	59.33	8.85	88.21	2.60	48.82
Total Proposed Project Off-Site Emissions[(2)]	104.43	16.60	181.36	5.27	107.82
SCAQMD CEQA Thresholds	550	55	55	150	150

(1) See Table 3.3-5.
(2) See Table 3.3-8.

Alternative 3 would reduce the on-site and off-site emissions from the proposed project to the ambient conditions. Most of the carcinogenic health risks associated with the operation of the ISOCI facility are associated with volatile organic compounds. The volatile organic compounds that are driving the cancer risk include benzene. A reduction in volatile organic compounds would be expected to result in reduced carcinogenic health hazards to the Reasonable Maximum Exposed Worker. The existing ISOCI site has about 43.36 pounds per day of volatile organic compound emissions (see Table 3.3-5) as compared to the proposed project of 63.91 pounds per day (see Table 3.3-8). Therefore, the human health impacts are expected to be reduced under Alternative 3 from the proposed project. The health impacts associated with Alternative 3 are expected to be less than significant for carcinogenic impacts, and chronic and acute non-carcinogenic health impacts.

4.4.3 Geology and Soils

The reduction of operations at the ISOCI facility would not alter existing impacts to geology and soils on fault rupture or liquefaction. The existing industrial facilities would still be located at the site and would still be subject to the potential for a major earthquake. All structures would be required to comply with the Uniform Building Code requirements. The ISOCI site would have less hazardous waste treatment equipment and

less storage capacity so that there would be less potential for damage in the event of a major earthquake than the proposed project.

Impacts associated with soil remediation, if determined necessary, would be the same as the proposed project. Impacts to earth resources would be expected to remain less than significant.

4.4.4 Hazards and Hazardous Materials

The reduced operations alternative would not eliminate the hazards associated with the ISOCI facility. In general, the hazards at the site under this alternative are expected to be less than the proposed project because ignitable and toxic wastes would not be handled at the site. The waste stream at the site would be limited to used and recycled oil. The chemicals with the highest toxicity and fire hazards are volatile organic compounds (i.e., ignitable wastes) and would not be present at the site under this alternative. The hazard impacts associated with the ISOCI facility would remain the same as those that currently exist at the site and are expected to be less than significant.

The facility would continue to accept a maximum of approximately 45 trucks per day as opposed to a maximum of 100 trucks per day associated with the proposed project. This would reduce the likelihood of a truck accident involving a spill from an estimated one accident every 5.7 years under the proposed project, to about one every 12.5 years (see Tables 3.5-10 and 3.5-3).

4.4.5 Hydrology and Water Quality

Reduced operations at ISOCI would continue to require an average of about 10,500 gallons of water per month. Additional water may be required for remediation activities, but this is expected to be a small amount used for dust suppression. The ISOCI facility currently is not connected to the sewer system. Under this alternative, it is assumed that the facility would still connect to the sewer system. The facility would be required to obtain and comply with the requirements of an industrial wastewater discharge permit which is expected to minimize wastewater impacts to less than significant.

ISOCI has submitted a Notice of Intent to the Regional Water Quality Control Board for a general permit to discharge storm water associated with industrial activity. A Storm Water Pollution Prevention Plan (SWPPP) has been prepared in compliance with these permit requirements. The Storm Water Pollution Prevention Plan requires the immediate clean up of spills and leaks and requires annual sampling of storm water runoff.

The project impacts on water resources under this alternative are expected to remain less than significant.

4.4.6 Land Use

Implementation of the reduced operations alternative would not change the land use impacts associated with the ISOCI site. The site is zoned for heavy industrial uses (M3-1) and the existing facility land uses are compatible within this zoning designation. The ISOCI facility currently has no land use permit from the City of Los Angeles. The City has granted "deemed-to-be-approved" conditional use authority to existing hazardous waste facilities. No conditional use permit would be required for the continued operation of the existing site. Under this alternative, the requirement for compliance with the Tanner Act would be eliminated.

The portion of Los Angeles in which ISOCI is located is identified as generally suitable for off-site hazardous waste management facilities in the Los Angeles County Hazardous Waste Management Plan. The Plan indicates that hazardous waste transfer and storage facilities are essential to the overall management of hazardous waste, and ISOCI would continue to provide recycling services for Los Angeles County. The site would be expected to continue to comply with the Los Angeles County Hazardous Waste Management Plan.

4.4.7 Noise

Under Alternative 3, noise levels would be expected to remain the same as baseline or existing conditions (see Table 3.8-3). Noise readings at the 80-85 dBA level were measured as trucks passed by on Soto Street, and noise levels averaged about 68-70 dBA when little traffic was traveling on Soto Street. On-site noise levels drop to 58 - 65 dBA without adjacent traffic. Overall noise levels in the area are not expected to change due to the fact that: (1) zoning at the site would remain unchanged; (2) processing equipment, truck traffic, and employee traffic would still be expected to be generated at the site; and (3) noise would still be generated from rail traffic in the area since the rail lines are located adjacent to the ISOCI facility. In general, the noise level in the Los Angeles area near the ISOCI facility is compatible with the industrial nature of the immediately surrounding area with noise levels of less than 80 decibels. The area surrounding ISOCI is an urbanized area characterized by heavy industrial development. The trucks on adjacent streets and trains on adjacent railroad tracks are a major source of noise in the area.

Trucks and employee vehicles from the ISOCI site would continue to generate noise off-site during the commute to/from the facility. The contribution of ISOCI to the local traffic in the greater Los Angeles area based on the results of the Federal Highway Administration Highway Traffic noise model is negligible since the traffic on the local streets and freeways is orders of magnitude greater than the traffic generated by ISOCI. Therefore, no increase or decrease in noise associated with mobile sources would be expected.

Overall, the noise impacts associated with this alternative are expected to remain less than significant.

4.4.8 Public Services

ISOCI would continue to rely on the Los Angeles City Fire Department to provide fire protection to the ISOCI facility. ISOCI would also continue to maintain its onsite fire extinguishing system. The ISOCI employee training program for response to fires and explosions would also continue.

The Los Angeles City Police Department would continue to provide police services for the ISOCI facility. Specialized backup (i.e. bomb squad) would be dispatched by LAPD, based on proximity, availability and the nature of the event. The facility would remain entirely fenced, with two gated entrances. The facility would also remain equipped with a 24-hour closed circuit television monitoring system. The impacts of this alternative on police and fire service are expected to remain less than significant.

4.4.9 Transportation and Circulation

The reduced operations alternative would result in impacts essentially the same as current traffic conditions. Sufficient parking would continue to be provided for workers within the boundaries of the ISOCI facility. The facility would continue to generate vehicle trips associated with current employees (18) and the truck trips associated with the delivery of hazardous waste (approximately 45 trucks per day).

Peak hour Level of Service (LOS) analyses for 2005 were developed for intersections in the vicinity of the site (see Table 3.10-1). The Level of Service analysis includes traffic associated with ISOCI which includes an estimated 18 workers and about 45 trucks per day. The Level of Service analysis indicates most intersections near ISOCI operate at Levels A to C during peak hours, i.e., smooth traffic flows. During the a.m. and p.m. peak hours, the only intersection operating below Level C is Soto Street at Washington Blvd. During the a.m. peak hour, this intersection operates at level D, and during the p.m. peak hour, it operates at level F. Level E represents volumes at or near the capacity of the highway which will result in possible stoppages of momentary duration and fairly unstable traffic flow. Level F occurs when a facility is overloaded and is characterized by stop-and-go (forced flow) traffic with stoppages of long duration. Due to the fact that the peak hour traffic from the ISOCI facility is minimal (18 workers) and the truck traffic is spread throughout the day, the impacts of a reduced operations alternative are expected to be less than significant.

4.4.10 Utilities and Service Systems

Under the reduced operations alternative, reduced operations at ISOCI would continue to require an average of about 10,500 gallons of water per month. Additional water may be required for remediation activities, but this is expected to be a small amount used for dust suppression. The ISOCI currently is not connected to the sewer system. Under this

alternative, it is assumed that the facility would still connect to the sewer system. The facility would be required to obtain and comply with the requirements of an industrial wastewater discharge permit which is expected to minimize wastewater impacts to less than significant.

4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 4-7 compares the potential environmental impacts of the alternatives with those of the proposed project. The California Environmental Quality Act Guidelines (15126(d)(4) provides that "(i)f the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." As presented in this Chapter, the No Project Alternative would not be environmentally superior to the proposed project.

Analysis shows that the reduced operations alternative (Alternative 3) would be the environmentally superior choice from the alternatives presented in this Chapter. The reduced operations alternative would reduce overall project impacts.

The proposed project is preferred because it will fully enable ISOCI and the Department of Toxic Substances Control to achieve the project objectives which include: (1) providing treatment options for hazardous waste near the sources of generation; (2) minimizing transportation distances for the treatment of hazardous wastes; and (3) providing adequate capacity for the safe, efficient treatment of hazardous waste within the greater Los Angeles area. The ISOCI facility provides treatment options for hazardous waste near the industrial areas of Los Angeles County and is central to the County. The ISOCI facility provides treatment options and minimizes transportation distances for wastes generated in Los Angeles County.

TABLE 4-7

Environmental Impacts of Alternatives as Compared to Proposed Project

Environmental Resource	Proposed Project	Alternatives		
		1	2	3
Aesthetics	NS	NS	NS	NS
Air Quality				
Construction Emissions	NS	S	S	NS
Operational Emissions	S	S	S	S
Toxic Air Contaminants				
Carcinogenic Impacts	MNS	MNS	MNS	NS
Non-Carcinogenic Impacts	S	MNS	MNS	NS
Geology and Soils	NS	NS	MNS	NS
Hazards and Hazardous Materials				
On-Site Hazards	MNS	NS	MNS	NS
Transportation Hazards	NS	PS	MNS	NS
Hydrology and Water Quality	NS	MNS	NS	NS
Land Use	NS	NS	NS	NS
Noise	NS	NS	NS	NS
Public Services	NS	NS	NS	NS
Transportation and Circulation	NS	NS	NS	NS
Utilities and Service Systems	NS	NS	NS	NS

S = Significant
NS = Not Significant
MNS = Not significant after implementation of mitigation
PS = Potentially significant measures depending on site specific factors.

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CHAPTER 5

CUMULATIVE IMPACTS

Introduction
Cumulative Projects
Cumulative Impacts

CHAPTER 5

CUMULATIVE IMPACTS

5.1 INTRODUCTION

There are a number of projects proposed for development in the vicinity of the ISOCI facility. The discussion below lists projects which are reasonably expected to proceed in the foreseeable future, i.e., project information has been submitted to a public agency.

5.2 CUMULATIVE PROJECTS

Public agencies were contacted to obtain information on projects within the Southeast Los Angeles/Vernon area, e.g., the City of Los Angeles and City of Vernon. The projects that have the potential for cumulative impacts near the ISOCI facility are identified in this section and shown on Figure 5-1. The projects are numbered and the location of the projects is identified by number on Figure 5-1.

5.2.1 I-710/ATLANTIC/BANDINI INTERCHANGE RECONFIGURATION PROJECT (1)

The City of Vernon has indicated that a project to reconfigure the I-710 interchange at Atlantic and Bandini has been approved. Construction of this project is expected to begin in early summer 2005, and is expected to take about one year to complete. (Kevin Wilson, City of Vernon, Personal Communication, January 2005).

5.2.2 MALBURG GENERATION STATION, CITY OF VERNON (2)

The City of Vernon is currently constructing the new Malburg Generating Station (MGS), a 134-megawatt (MW) natural gas-fired, combined-cycle electric generating facility. The project will be owned, constructed, and operated by the City of Vernon, and will become part of the City's municipal electric grid. The MGS site is located at 2715 East 50th Street, in Vernon, California on 3.4 acres owned by the City of Vernon. The site is surrounded by industrial land uses in the western portion of the City of Vernon, about three miles southeast of downtown Los Angeles. According to the California Energy Commission database, the project went on line October 17, 2005 (CEC, 2006).

5.2.3 CITY OF LOS ANGELES PROJECTS

There are four projects in the City of Los Angeles located near the ISOCI facility. These projects represent approximately 3.4 million square feet of development in manufacturing, retail, office, industrial and storage facilities, and a new school. Table 5-1 gives the location, size, description, and proximity to ISOCI of these projects. (Ed Chow and Eileen Hunt, Los Angeles Department of Transportation, Personal Communication).

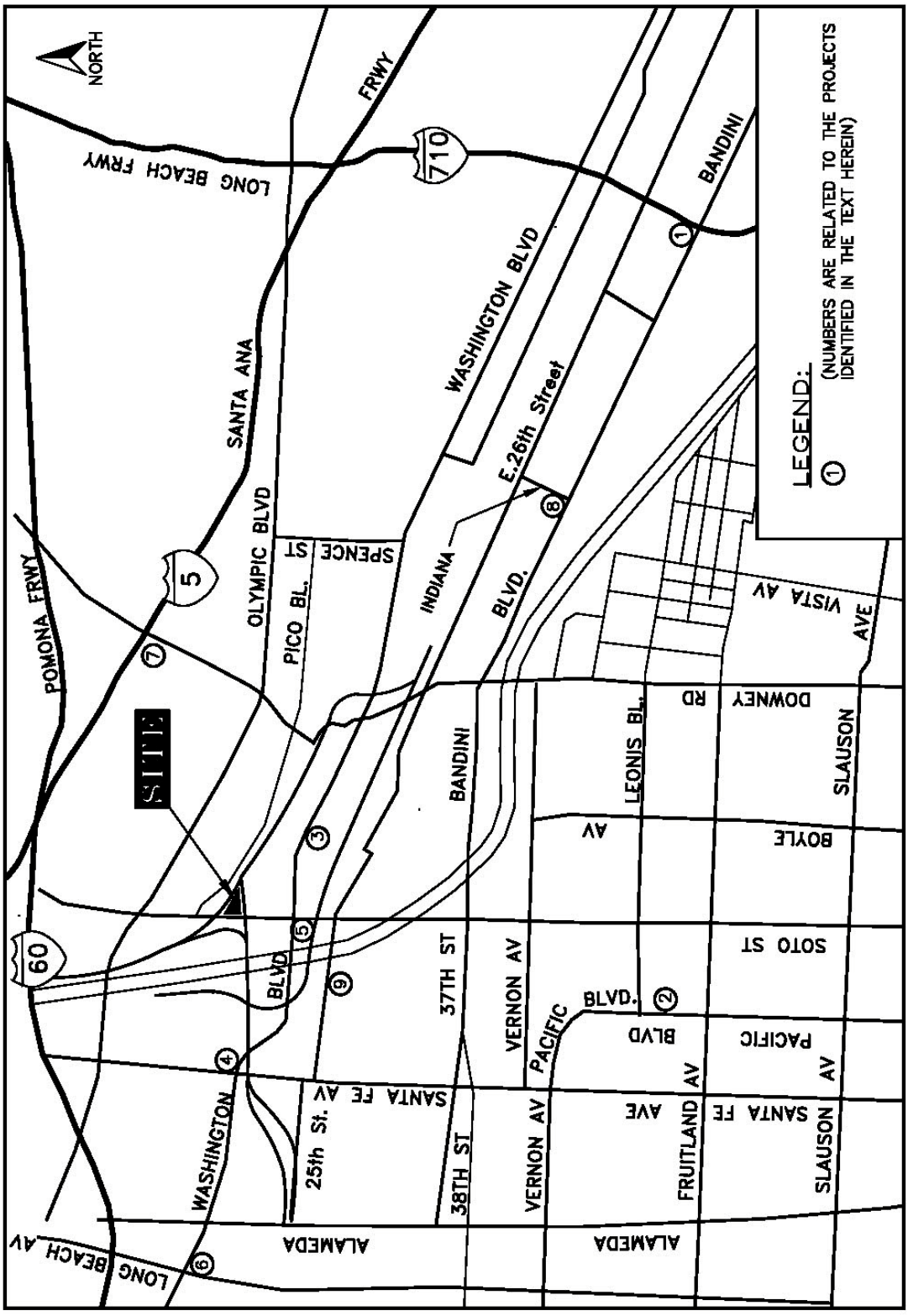

FIGURE 5–1
CUMULATIVE PROJECTS
LOCATION MAP

Note: Quemetco is not included on map because it is located about 14 miles east of the site & not expected to have cumulative impacts with ISOC

Project No. 1831
I:\1831\rev.1\Cumulative Projects

TABLE 5-1

Related Projects in the City of Los Angeles[1]

Map No.	Address/Location	Size (square feet)	Project Description	Distance from Proposed Project
3	3000 Washington Blvd.	1,191,556	Heavy Industrial Park	< 1 ½ miles
4	Washington Blvd.	400,000	Produce Market	< 1 ½ miles
5	2650 Olympic Blvd. (Sears Building Renovation)	1,300,000	Office, Industrial, Storage	< 1 ½ miles
		229,000	Retail	
		4,000	Fast Food	
		440	Townhomes	
		180	Apartments	
6	2015 Long Beach Ave.	272,209	Manufacturing	< 1 ½ miles
7	1102 Lorena Street	520 students	New High School	< 1 ½ miles

(1) Source: Ed Chow and Eileen Hunt, Los Angeles Department of Transportation, Personal Communication

MJW Investments, Inc. is finalizing plans for a mixed-use project on the 23.5-acre Sears site at 2650 Olympic Boulevard, at the intersection of Soto Street. Property adjacent to the Sears site is also included in the plan. (*Note: since the completion of the Draft EIR, MJW has indicated that it will not develop the property and has announced plans to sell the property).* Original plans include 440 townhomes and condominiums, 180 rental apartments, with 20 percent of the units reserved for low-income families. Additionally, retail space, an office component, and parking for at least 3,000 cars are on the plans. Also included in the plans are cobble-stone streets winding through the project to connect homes with commercial structures, as well as the proposed community center and several acres of athletic fields and parks (Fixmer, 2004).

5.2.4 EXIDE (8)

Exide is located at 2700 S. Indiana Avenue (site) in the City of Vernon, California. Exide operates a secondary lead smelting facility for the purpose of recycling lead. The facility recovers and reprocesses lead from used automotive batteries and other sources. Approximately 198,000 tons of batteries are recycled annually. DTSC is in the process of preparing an Environmental Impact Report and reviewing the Part B permit for the Exide facility.

5.2.5 QUEMETCO (NOT INDICATED ON MAP)

The Quemetco, Inc. facility is located at 720 South Seventh Avenue in the City of Industry. Quemetco operations consist of treatment, storage and transfer of hazardous and nonhazardous wastes related to the recycling of used and flawed automotive batteries and other recyclable lead materials. The DTSC has completed and certified a Final Environmental Impact Report for the Hazardous Waste Management Operation and Post Closure Permit application for the Quemetco facility (DTSC, 2001). The facility is located about 14 miles east of the ISOCI facility so that cumulative impacts between Quemetco and ISOCI facility are not expected.

5.2.6 D/K ENVIRONMENTAL(9)

DeMenno Kerdoon purchased the Chem-Tech facility located at 2650 26th Street, Los Angeles, California. This facility is a large hazardous waste management facility which handles more than 1,000 tons of waste per month. In 1991, Chem-Tech applied to the DTSC to renew the operating permit, and to make major changes to the facility. DTSC has requested that an Environmental Impact Report be prepared for this facility before a permit determination is made.

5.3 CUMULATIVE IMPACTS

CEQA Guidelines §15130(a) indicate that an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider the effect significant, but must briefly describe the basis for concluding that the incremental effect is not cumulatively considerable.

Chapter 5 provides an assessment of potential environmental impacts associated with the cumulative construction and/or operation of other facilities including the ISOCI facility. Cumulative impacts to the affected environment of each resource are analyzed below. The significance criteria for each environmental resource discussed in Chapter 5 is the same as the significance criteria for each environmental resource discussed in Chapter 3.

The detailed cumulative analyses herein are based on information that is available in the public domain. Where detailed information (i.e., environmental impact reports or negative declarations) on related projects is available, it is discussed. Detailed information is used when its available. Otherwise assumptions or qualitative analyses are used to review the environmental impacts.

5.3.1 AESTHETICS

5.3.1.1 Cumulative Impacts

For the proposed project, the project's contribution to cumulative aesthetic impacts is not cumulatively considerable and thus not significant because the environmental conditions would essentially be the same whether or not the proposed project is implemented (CEQA Guidelines 15130). The cumulative aesthetic resources evaluated in this section are located within about one mile of the proposed project, i.e., the Boyle Heights areas.

The proposed ISOCI project is not expected to have an adverse effect on scenic vistas; is not expected to damage scenic resources; is not expected to degrade the existing visual character or quality of the site; nor is it expected to create a substantial new source of light or glare. No scenic views or resources are present in the vicinity of the proposed project area. Therefore, no significant cumulative impacts on aesthetics are expected from the proposed project or other related projects.

Most of the cumulative projects are located in commercial or industrial areas where there are no scenic vistas. The Sears Building is a historical landmark in the central Los Angeles area. Current development plans include leaving the tower structure in place and renovating the tower to include residential units. Therefore, the noticeable tower structure would be protected. No cumulative aesthetic impacts are expected.

5.3.1.2 Mitigation Measures

No significant cumulative aesthetic impacts were identified so no mitigation measures are required.

5.3.2. AIR QUALITY

5.3.2.1 Construction Impacts

The air quality impacts due to construction activities at ISOCI are expected to be below the South Coast Air Quality Management District significance thresholds (see Table 3.3-7). Therefore, the air quality impacts due to construction at ISOCI are expected to be less than significant. The cumulative air quality impacts were evaluated for the South Coast Air Basin.

Cumulative impacts due to construction associated with other projects are expected to be temporarily significant since the South Coast Air Quality Management District thresholds for volatile organic compounds, carbon monoxide, nitrogen oxides, and particulate matter will be exceeded (see Table 5-2).

TABLE 5-2

CUMULATIVE CONSTRUCTION AIR QUALITY IMPACTS (POUNDS PER DAY)

Address/Location	Project	Estimated Emissions				
		CO	VOC	NOx	SOx	PM10
1700 S. Soto St.	ISOCI Project[(1)]	270.41	17.08	66.61	5.03	55.08
3000 Washington Blvd	Heavy Industrial Park	1,428.33	2,014.12	1,400.26	0.21	13.63
Washington Blvd.	Produce Market	494.71	678.13	485.03	0.07	4.61
2015 Long Beach Ave.	Manufacturing	353.15	463.22	338.50	0.05	3.27
1102 Lorena St.	New High School	51.07	6.33	47.02	0.00	0.45
	Total Emissions	2,597.67	3,178.88	2,337.42	5.36	77.04
	SCAQMD Thresholds	550	75	100	150	150
	Significant	**Yes**	**Yes**	**Yes**	**No**	**Yes**

[(1)] See Table 3.3-7

The construction of the Marburg Generating station is expected to be completed by September, 2005 so that construction activities will not overlap with ISOCI. Therefore, construction activities associated with the Marburg Generating station are not included in Table 5-2. Construction activities associated with renovation of the Sears Building are several years away as no specific project has been proposed. Therefore, the construction activities at the Sears building will not overlap with construction activities at ISOCI and they are not included in Table 5-2. No substantial construction activities are expected at the hazardous waste treatment facilities because they are existing facilities, so construction activities are also not included in Table 5-2. Cumulative construction impacts on air quality are expected to be significant for CO, VOC, NOx and PM10. Cumulative construction impacts on air quality are not expected to be significant for SOx.

5.3.2.2 Operational Impacts - Criteria Pollutants

The operational emission impacts from the cumulative projects in the area are summarized in Table 5-3. The operational cumulative impacts are considered to be significant since the projects overall will exceed SCAQMD thresholds in the Basin for all criteria pollutants. Cumulative operational impacts on air quality are expected to be significant for CO, VOC, NOx, SOx and PM10.

TABLE 5-3

CUMULATIVE OPERATIONAL AIR QUALITY IMPACTS (POUNDS PER DAY)

Address/Location	Project	Estimated Emissions				
		CO	VOC	NOx	SOx	PM10
1700 S. Soto St.	ISOCI Facility[1]	123.82	80.51	208.39	6.17	111.55
	Malburg Generating Station[2]	104.59	36.05	176.73	6.00	164.28
3000 Washington Blvd	Heavy Industrial Park	844.63	80.48	77.25	0.72	64.42
Washington Blvd.	Produce Market	2,984.60	267.84	282.88	2.34	209.32
2650 Olympic Blvd.	Office, Industrial, Storage	3,007.25	296.87	288.02	2.48	223.28
2015 Long Beach Ave.	Manufacturing	145.73	14.84	13.92	0.12	11.19
1102 Lorena St.	New High School	89.33	16.05	8.72	0.07	6.73
Total Emissions		7299.95	792.64	1055.91	17.90	790.77
SCAQMD Thresholds		550	75	100	150	150
Significant		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

(1) See Table 3.3-8
(2) Source: CEC, 2003

5.3.2.3 Operational Impacts – Toxic Air Contaminants

The location of the ISOCI facility in relation to other related industrial projects is a sufficient distance such that cumulative TAC impacts are not expected.

An increase in toxic air contaminants associated with other projects would also be expected mainly due to an increase in mobile source emissions. The proposed project and cumulative projects will lead to increased emissions of diesel exhaust particulate matter from diesel-fueled truck exhaust, and diesel fueled railroad engines. In 1998, CARB listed particulate matter in the exhaust from diesel-fueled engines (diesel particulate) as a toxic air contaminant and concluded that it is probably carcinogenic to humans.

The SCAQMD MATES II study presents the regional cancer risk levels in the Basin (SCAQMD 2000c). Of the ten monitoring sites in the MATES II study, Los Angeles is the closest site to the ISOCI facility. The cancer risk at the Los Angeles site, based on monitoring data, was about 400 per million from stationary and mobile sources (other than diesel particulate emissions). The cancer risk from mobile sources (alone) was about 250 per million. The cancer risk associated with diesel particulate emissions was about 1,000 per million. The MATES II study concluded that the total carcinogenic risk in the Basin currently exceeds thresholds of significance, even without the proposed project or related cumulative projects.

Since the project-specific toxic air contaminant impacts would not be significant for carcinogenic, acute or chronic health impacts, they are not considered to be cumulatively considerable. Existing emissions are being addressed through the Air Quality Management Plan, which provides measures to reduce emissions and help the Basin attain federal and state ambient air quality standards and the Air Toxics Control Plan. Some of these measures are aimed at reducing emissions of diesel-fueled engines, which will also reduce emissions of TACs.

5.3.2.4 Mitigation Measures

Construction: Modifications to facilities in the South Coast Air Basin will require the use of best available control technology for construction equipment, keep all vehicles and construction equipment well tuned, develop trip reduction plans, and water active construction sites to reduce dust emissions.

The following mitigation measures have been identified to control emissions from heavy construction equipment and worker travel. The following mitigation measures should be considered for the cumulative projects:

On-Road Mobile Sources:

Develop a Construction Emission Management Plan. The Plan shall include measures to minimize emissions from vehicles including, but not limited to: scheduling truck deliveries to avoid peak hour traffic conditions; consolidating truck deliveries; and prohibiting truck idling in excess of 10 minutes.

Off-Road Mobile Sources:

Prohibit trucks from idling longer than 10 minutes.

Use electricity or alternate fuels for on-site mobile equipment instead of diesel equipment to the extent feasible.

Maintain construction equipment tuned up and with two to four degree retard diesel engine timing.

Use electric welders instead of gas or diesel welders where electricity is available.

Use on-site electricity rather than temporary power generators where electricity is available.

Prior to construction, evaluate the feasibility of retrofitting the large off-road construction equipment that will be operating for significant periods. Evaluate the feasibility of retrofit technologies such as selective catalytic reduction, oxidation catalysts, air enhancement technologies, etc. Such technologies will be required if

they are commercially available and can feasibly be retrofitted onto construction equipment.

Prior to construction, the project applicant should evaluate the feasibility of using alternative fuels in large off-road construction equipment that will be operating for significant periods. Alternative fuels can include fuel additives or modified fuels, e.g., PuriNOx, that have been demonstrated by CARB to result in emission reductions. PuriNOx fuel is comprised of the PuriNOx additive package, purified water and diesel fuel. These components are mixed in a blending unit to produce a finished fuel. The water content promotes an atomization of the mixture during fuel injection and improves combustion, while lowering combustion temperatures, and reducing NOx emissions.

Water emulsion diesel fuels (e.g., PuriNOx) have a much lower energy content than regular diesel fuels which typically translates into a significant loss in fuel economy. This is offset slightly by an increase in thermal efficiency. Lubrizol, the manufacturer of PuriNOx, indicates that its product, containing 20 percent water emulsions, results in a 13 percent reduction in fuel economy. Lubrizol also warns of a power loss when operating with its fuel stating that the equipment should be tolerant of up to a 20 percent loss in power.

Emulsion-based diesel products do not meet ASTM D-975 specifications for diesel fuel due to their water content. Most manufacturers of diesel engines specify use of an ASTM D-975 compliant fuel in their engine applications. Potential users of an emulsion-based diesel fuel should confirm the suitability of the fuel for use in their specific engine application and ensure that such use would not void any aspect of the engine warrantee.

PuriNOx can be used in direct injection heavy-duty compression ignition engines, including construction equipment. Lubrizol representatives indicate that a large-scale batch blending unit has been installed in southern California. The blending unit is estimated to have a throughput of 20 million gallons per year. PuriNOx is estimated to result in a 14 percent reduction in NOx and a 63 percent reduction in particulate matter in off-road engines.

The use of PuriNOx is considered to be a feasible mitigation measure when it becomes commercially available. It is recommended that PuriNOx should be used in construction equipment, if the engine manufacturer indicates that the use of the fuel is compatible with the engine so that the engine warrantee is not voided.

Use low sulfur diesel (as defined in SCAQMD Rule 431.2) if available.

Use CARB certified construction equipment for all construction equipment that requires CARB certification.

Suspend use of all construction activities that generate air emissions during first stage smog alerts.

The engine size of construction equipment shall be the minimum practical size.

PM10 Emissions from Grading, Open Storage Piles, and Unpaved Roads:

Develop a fugitive dust emission control plan. Measures to be included in the plan include, but are not limited to the following: (1) water active construction site three times per day, except during periods of rainfall; (2) suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour. The emission reductions associated with this mitigation measure cannot be quantified (SCAQMD, 1993); (3) apply water three times daily, except during periods of rainfall, to all unpaved road surfaces. This mitigation measure would reduce PM10 emissions by a minimum of 45 percent (SCAQMD, 1993); and (4) limit traffic speeds on unpaved roads to 15 mph or less. The emission benefits of this mitigation measure are estimated to be 40 to 70 percent (SCAQMD, 1993).

Other Mitigation Measures:

Investigate measures to reduce the VOC emissions associated with the use of paints for architectural coatings.

Provide temporary traffic control during all phases of construction activities.

Implement a shuttle service to and from retail services during lunch hours.

Use methanol, natural gas, propane or butane powered construction equipment.

Pave unpaved roads.

Operation: The mitigation measures to minimize air emissions associated with operation of the related projects include the use of BACT for all new emission sources and modifications to existing sources. The use of BACT would control localized emissions. A BACT review will be completed during the SCAQMD permit approval process for all new/modified sources.

The control strategies in the Air Quality Management Plan are based on projections from the local General Plans from various cities in Southern California (including the City of Los Angeles). Projects which are consistent with the local General Plans are consistent with the air quality related regional plans (SCAQMD, 1993). The Air Quality Management Plan identifies air emission reductions from existing sources and air pollution control measures that are necessary in order to comply with the state and federal ambient air quality standards (SCAQMD, 2003). New sources are required to comply with the South Coast Air Quality Management District's New Source Review regulations, which include the use of Best Available Control Technology and the requirement for emissions offsets.

5.3.3 GEOLOGY AND SOILS

5.3.3.1 Cumulative Geology and Soils Impacts

For the proposed project, the project's contribution to cumulative geology and soils impacts are not cumulatively considerable and thus not significant because the environmental conditions would essentially be the same whether or not the proposed project is implemented (CEQA Guidelines 15130). The cumulative geology and soils resources evaluated in this section are located within about one mile of the proposed project, i.e., the Boyle Heights area.

The proposed project and related projects are subject to groundshaking, as are most areas of California. The related projects would increase the number of facilities and structures subject to earthquake damage, and thus increase the potential impacts during an earthquake. Assuming adherence to the applicable building codes, Seismic Safety Plans, and Uniform Building Codes, the cumulative impacts from a major earthquake would be reduced, but not eliminated. All projects would require geotechnical evaluation by the local agency (usually the city) responsible for issuing building permits and a civil or structural engineer to assure the project design complies with appropriate building and safety regulations. The cumulative seismic impacts are considered to be less than significant with adherence to appropriate building codes.

5.3.3.2 Mitigation Measures

No significant cumulative impacts to geology and soils are expected due to implementation of the related projects with compliance with the Uniform Building Code Zone 4 requirements to minimize the potential impacts of an earthquake on the proposed projects.

5.3.4 HAZARDS AND HAZARDOUS MATERIALS

5.3.4.1 Cumulative Hazards and Hazardous Materials Impacts

For the proposed project, the project's contribution to cumulative hazards and hazardous materials impacts are not cumulatively considerable and thus not significant because the environmental conditions would essentially be the same whether or not the proposed project is implemented (CEQA Guidelines 15130). The cumulative hazards and hazardous materials resources evaluated in this section are located within about one mile of the proposed project.

The proposed project impacts on hazards and hazardous materials were considered to be less than significant, following mitigation. Although there are a number of related projects within the Southeast Los Angeles/Vernon area, the cumulative impacts associated with hazards from and between the onsite operation of the ISOCI facility with other various facilities are not expected to be significant because it is extremely unlikely that upset conditions would occur at more than one facility. It also is extremely unlikely that an upset condition at one facility would create an upset at another nearby facility due to the distances between the related

projects facilities (see Figure 5-1). For example, the Malburg Generating Station is limited to hazards associated with aqueous ammonia within about 25 meters of the facility, so that the hazards will not overlap with or occur near the ISOCI facility.

In the event of a major disaster, e.g., serious earthquake in the area, a number of upset events could be triggered including spills, fires, building damage, etc. These hazards are not considered to be cumulative significant impacts because they would exist with or without the cumulative projects. Under these circumstances, the City of Los Angeles' emergency response plan would be implemented. The plan outlines the steps required for fire and rescue, law enforcement, traffic control, medical aid, transportation, public health, coroner duties, care and shelter, construction, engineering, obtaining needed resources, and coordinating outside support.

The impact of the continued operation of ISOCI on soil contamination is expected to be less than significant, following mitigation (see subchapter 3.5). Major construction activities in the area would include activities associated with the Interstate 710/Atlantic/Bandini Interchange Reconfiguration project. All of the related projects that will require excavation have the potential to unearth contaminated soils.

Contaminated sites could be unearthed during construction activities. Clean-up activities would be required, and are required to be conducted in accordance with all applicable regulations and guidelines governing the removal and disposal of hazardous materials. In most cases these clean-up efforts would remediate the problem and no further work would be required. However, in some cases continued monitoring of particular sites may be required to ensure that no migration of existing contamination has occurred subsequent to the primary clean-up operations.

Soil contamination has been detected at other hazardous waste facilities that are undergoing review of their Part B permits and at other industrial sites. Facilities where soil contamination has been identified are required to identify areas of contamination and to remediate contaminated soils or ground water, if appropriate. Other hazardous waste facilities (i.e., Exide and D/K Environmental) will have requirements to identify and remediate soil contamination as part of their Part B permits.

The overall impact of the related projects on soil contamination would be considered beneficial since remediation would remove or reduce soil contamination in the area. Soil remediation is regulated by numerous regulatory agencies including the Department of Toxic Substances Control division of the California EPA, the State Regional Water Quality Control Board, local health departments, and the SCAQMD. Compliance with all applicable rules and regulations would mitigate impacts to a level of insignificance.

5.3.4.2 Cumulative Hazards and Hazardous Materials Mitigation Measures

The proposed project impacts on hazards were less than significant. A number of existing rules and regulations apply to the ISOCI facility and other hazardous waste facilities. Compliance with these rules and regulations minimizes hazards at all hazardous waste

facilities. Site-specific mitigation measures may be required for other projects. Since no cumulative hazard impacts were identified for the ISOCI project, no mitigation measures are required. A number of existing rules, including Title 22 of the California Code of Regulations, regulate the disposal and treatment of contaminated soils and mitigate hazard impacts.

5.3.5. HYDROLOGY/WATER QUALITY

5.3.5.1 Cumulative Hydrology/Water Quality Impacts

For the proposed project, the project's contribution to hydrology and water quality impacts are not cumulatively considerable and thus not significant because the environmental conditions would essentially be the same whether or not the proposed project is implemented (CEQA Guidelines 15130). The cumulative hydrology and water quality impacts evaluated in this section are located within about one mile of the proposed project.

Wastewater: The wastewater discharge impacts due to the continued operation of ISOCI were determined to be less than significant (see Chapter 3.6 – Hydrology and Water Quality). The estimated increase in wastewater generation associated with the ISOCI facility plus other proposed projects is estimated to be about 877,000 gallons per day (see Table 5-4). The Exide and D/K Environmental facilities are existing operating facilities so no significant increase in wastewater generation is expected from these facilities. The renovation of the Sears building will generate additional quantities of wastewater. Estimates of the potential wastewater generated from the Sears building renovation are included in Table 5-4, but are subject to change as no formal application has been submitted.

The project area has not been identified as an area that requires a sewer capacity study area (City of Los Angeles, 1998). Most of these facilities are expected to discharge to the Los Angeles County Sanitation District's sewage system, which is treated by the Joint Water Pollution Control Plant. However, on a cumulative basis, the cumulative projects could result in significant impacts to the sewer system because of the significant increase in volume.

Ground Water: The historical impact of contaminated waste sites, hazardous waste facilities, and other industrial facilities in the Southeast Los Angeles/Vernon area has been a significant adverse impact on ground water quality since there are a number of areas where ground water has been or may have been contaminated. The extent of ground water impacts and the source(s) which has (have) contributed to the contamination have not been fully quantified.

TABLE 5-4

Estimated Wastewater Generated by Cumulative Projects

Address/Location	Size (Square Feet)	Project Description	Sewage Generation Factors (gals/1000 sq ft.)[1]	Estimated Wastewater Generated (gal/day)
3000 Washington Blvd.	1,191,556	Heavy Industrial Park	80	95,324
Washington Blvd	400,000	Produce Market	80	32,000
2650 Olympic Blvd. (Sears Building Renovation)	1,300,000	Office, Industrial, Storage	150[2] 80	97,500 52,000
	229,000	Retail	80	18,320
	4,000	Fast Food	300	1,200
	440 180	Townhomes Apartments	180-230/unit 120-200/unit	79,200-101,200 21,600-36,000
2015 Long Beach Ave.	272,209	Manufacturing	80	21,777
1102 Lorena	520 Students	High School	12/student	6,240
Malburg Generating Station	-	Power Plant	-	331,200[3]
ISOCI	-	Oil Recycling Facility	-	84,600
Total Cumulative Wastewater Generation:				877,361

(1) Source: City of Los Angeles, 1998.
(2) Assumes 50% of the development is office space and 50% is industrial.
(3) Source: CEC, 2003

The impacts of the continued operation of the ISOCI facility on ground water are considered to be below the significance criteria so that the project related impacts are expected to be less than significant. The cumulative impact of the proposed project, other proposed projects in the area, and projects in the foreseeable future are expected to result in a beneficial impact to ground water. The hazardous waste facilities and hazardous waste sites will be required to clean up areas of ground water contamination, or soil contamination that could lead to ground water contamination, or demonstrate that no impact on ground water has, or could occur. Construction of other industrial facilities could identify areas of unknown soil contamination which could then be remediated.

The related projects are not expected to further impact ground water either individually or cumulatively due to the current regulatory controls on underground structures, e.g., the requirement for leak monitoring and detection programs for underground storage tanks.

Water Demand: The proposed project is not expected to require a substantial increase in water resources. The average water use at the ISOCI facility may increase slightly to about 15,000 gallons per month (as compared to the current water use of about 10,500 gallons per month).

The water for the other Part B projects (Exide and D/K Environmental) and the Malburg project is provided by the City of Vernon and not the Los Angeles Department of Water and Power, so no cumulative impact is expected from these facilities. Further, the Malburg Generating Station will largely use reclaimed water, which largely mitigates their water demand (CEC, 2003).

The cumulative impacts of the related projects on water demand are associated with the projects within the City of Los Angeles and their construction will trigger Section 15083.5 of the CEQA Guidelines because: (1) more than 500 residential units may be proposed; (2) shopping centers or business establishments greater than 500,000 square feet may be proposed; (3) commercial office buildings greater than 250,000 square feet may be proposed; and (4) an industrial area greater than 650,000 square feet may be proposed. Section 15083.5 of the CEQA Guidelines requires that the local agency provide notice to each public water system of a proposed project (that exceeds the above sizes) and request that the water system indicate whether the projected water demand associated with the proposed project was included in the last urban water management plan. CEQA Guidelines also require the project to assess whether its total projected water supplies available during normal, single-dry, and multiple-dry water years will meet the projected water demand associated with the proposed projects, in addition to the system's existing and planned future uses.

Cumulative impacts from the related projects have the potential for significant adverse cumulative impacts on water demand. However, the ISOCI project's contribution to the water demand is not cumulatively considerable as it is about 150 gallons per day.

Surface Water: The impacts of the continued operation of ISOCI on surface water are considered to be below the significance criteria so that project related impacts are expected to be less than significant.

Secondary containment and surface water control is required for all facilities under the Part B Permit (e.g., Exide, D/K Environmental and ISOCI facilities) so that no cumulative impacts are expected from these facilities.

The cumulative impacts of the related projects on water quality are expected to be primarily limited to storm water discharge from the facilities. The related projects generally represent infill development or construction of already developed areas (e.g., the Sears building) so that no substantial increase in impervious structures is expected. The storm water discharge is expected to be mitigated by compliance with various water quality regulations including Industrial Waste Discharge Permit requirements, National Pollutant Discharge Elimination System permits, and Storm Water Pollution Prevention requirements. Therefore, no significant cumulative impacts on storm water discharges are expected.

5.3.5.2 Cumulative Hydrology/Water Quality Mitigation Measures

The cumulative impacts on wastewater discharge are potentially significant. Potential mitigation measures include:

Retrofit buildings with low-flow plumbing fixtures to offset wastewater generation.

Install a holding tank large enough to hold three times the project daily wastewater flow so that the tank would hold all project-related wastewater during peak wastewater flow periods for discharge into the wastewater collection system during off-peak periods.

Include grey water system to reuse wastewater.

Offset excess wastewater generation by restricting the wastewater generation of other land uses within the same service area.

Construct new wastewater treatment or conveyance infrastructure, or capacity enhancing alterations to existing systems.

The cumulative impacts on water demand are potentially significant. Potential mitigation measures include:

Use tankless water heaters.

Use reclaimed water as a source for project irrigation systems.

Set automatic irrigation systems to irrigate during early morning or evening hours to minimize water loss due to evaporation, and reset to water less in cooler months and during rainfall season.

Use drip irrigation and soak hoses in lieu or sprinklers to lower the amount of water lost to evaporation and overspray.

Practice xeriscaping that exceeds City of Los Angeles requirements.

5.3.6. LAND USE/PLANNING

5.3.6.1 Cumulative Land Use/Planning Impacts

For the proposed project, the project's contribution to land use impacts are not cumulatively considerable and thus not significant because the environmental conditions would essentially be the same whether or not the proposed project is implemented (CEQA Guidelines 15130). The cumulative land use impacts evaluated in this section are located within about one mile of the proposed project and generally include the Boyle Heights area.

The ISOCI facility is consistent with the other heavy industrial land uses in the Southeast Los Angeles/Vernon area. The related facilities that are undergoing Part B permit application review are located in industrial areas and generally compatible with the industrial land use designation. Issuance of Part B permits for various facilities would help towards compliance with the goals of the Los Angeles County Hazardous Waste Management Plan. The Plan requires the County to demonstrate the ability to treat all wastes generated within the County. Therefore, issuance of Part B permits would have a beneficial impact on hazardous waste treatment. Consistency with the County Hazardous Waste Management Plan will need to be determined for each facility.

There is the potential for land use conflicts associated with the renovation of the Sears building as it proposes to convert an existing commercial development into a mixed use development that includes residential units. Development of this site may be inconsistent with the adopted land use/density designation of the Boyle Heights Specific Plan (City of Los Angeles, 1991). This development will probably require a General Plan amendment and could place residents closer to the ISOCI facility than currently exist, and place residents close to or adjacent to industrial areas, depending on the location of the residential areas. However, until specific development plans are available, the magnitude of these impacts is unknown.

5.3.6.2 Cumulative Land Use/Planning Mitigation Measures

Potentially significant land use impacts were identified for the Sears building renovation project. Potential mitigation measures could include:

> Modify the land uses to be consistent with designated land uses, zoning and/or General Plan or Specific Plans and their elements.
>
> Relocate proposed structures (e.g., residents) or reduce the project's density/intensity to reduce conflicts or inconsistencies with the Land Use element and plans.

5.3.7. NOISE

For the proposed project, the project's contribution to noise impacts are not cumulatively considerable and thus not significant because the environmental conditions would essentially be the same whether or not the proposed project is implemented (CEQA Guidelines 15130). The cumulative noise impacts evaluated in this section are located within about one mile of the proposed project and generally include the Boyle Heights area.

5.3.7.1 Cumulative Construction Noise Impacts

The noise levels associated with construction activities at the ISOCI facility are expected to be about the same as the existing noise levels so that no significant noise impacts are expected. Construction phases of the related projects are expected to generate localized, short-term noise impacts, some of which may be mitigated during construction by the use of muffling devices, restriction of work hours for segments in residential areas, etc.

Construction activities are expected to be limited to 7 a.m. to 8 p.m., which would generally prevent significant noise impacts. However, the construction of the I-710 Freeway/Atlantic/Bandini interchange is likely to generate temporary noise impacts. These noise impacts are likely to be significant, as construction at nighttime will probably be required to minimize construction impacts on traffic along the 710 Freeway. This interchange is located within the industrial area of the City of Vernon, so few sensitive receptors are located near this interchange.

5.3.7.2 Cumulative Operational Noise Impacts

Impacts on noise due to the continued operation of the ISOCI facility are considered acceptable for the surrounding land uses and comply with the City of Los Angeles's General Plan. Therefore, no significant impacts on noise are expected due to the continued operation of the ISOCI facility.

The cumulative noise impacts from the related projects due to stationary sources, including other hazardous waste facilities, are not expected to be significant due to the distance between the facilities (see Figure 5-1). Noise increases from the Malburg Generating Station is a maximum of three decibels at 1,600 feet and will be limited to the Vernon area (CEC, 2003).

Most of the noise in the area is from mobile sources, including vehicles, trucks and rail. Noise levels increase approximately three decibels for each doubling of roadway traffic volume, assuming the speed and fleet mix remain constant (City of Los Angeles, 1998). The cumulative noise impacts from traffic are considered to be less than significant because the cumulative traffic increase would be less than double the existing volume. Soto Street carries over 40,000 vehicles a day and does not have enough capacity to handle 80,000 vehicles per day, as currently configured. It is expected that projects like the Sears building renovation would require reconfiguration of certain intersections in order to accommodate the anticipated traffic levels. Nonetheless, noise impacts due to traffic associated with the cumulative projects are expected to be less than three decibels and, therefore, less than significant.

5.3.7.3 Mitigation Measures

No significant cumulative impacts on noise were identified so that no mitigation measures are required.

5.3.8. PUBLIC SERVICES

5.3.8.1 Cumulative Public Services Impacts

For the proposed project, the project's contribution to public services impacts are not cumulatively considerable and thus not significant because the environmental conditions would essentially be the same whether or not the proposed project is implemented (CEQA Guidelines 15130). The cumulative public service impacts evaluated in this section are

located within about one mile of the proposed project and generally include the Boyle Heights area.

The issuance of the Part B permit for the other hazardous waste treatment facilities and operation of the Malburg Generating Station would not result in cumulative impacts to public services. These projects are located within other jurisdictions (the City of Vernon) and police and fire services are provided by the City of Vernon, so that cumulative impacts to public services (fire and police) within the City of Los Angeles are not expected.

The net population increase resulting from the projects within the City of Los Angeles are estimated in Table 5-5. The renovation of the Sears building will generate additional population. Estimates of the potential population increase generated from the Sears building renovation are included in Table 5-5, but are subject to change as no formal application has been submitted.

TABLE 5-5

Related Projects Estimated Population Increase

Address/Location	Size (Square Feet)	Project Description	Population Conversion Factors[1]	Estimated Population Increase
3000 Washington Blvd.	1,191,556	Heavy Industrial Park	3 persons/1,000 sf	3,575
Washington Blvd.	400,000	Produce Market	3 persons/1,000 sf	1,200
2650 Olympic Blvd. (Sears Building Renovation)	1,300,000	Office, Industrial, Storage	4 persons/1,000 sf	5,200
	229,000	Retail	3 persons/1,000 sf	687
	4,000	Fast Food	-	-
	440 180	Townhomes Apartments	3 persons/unit 3 persons/unit	1,320 540
2015 Long Beach Ave.	272,209	Manufacturing	3 persons/1,000 sf	817
ISOCI	-	Oil Recycling Facility	-	12
Estimated Cumulative Population Increase:				13,351

(1) Source: City of Los Angeles, 1998.

The cumulative increase in population is estimated to be 13,351 in a relatively small area. It is expected that this increase in population would have potentially significant cumulative impacts for police and fire services. Further, on a cumulative basis, intersections could exceed level of service E or F (see subchapter 5.3.10), adversely impacting response times.

5.3.8.2 Cumulative Public Services Mitigation Measures

Potential mitigation measures include the following:

> Require the project applicant to consult with the Los Angeles Police Department's Crime Prevention Section for the design and implementation of a security plan for the proposed project that considers the following elements: (1) use private security guards to monitor and patrol the project site during project construction and operation; (2) design entryways, elevators, lobbies and parking areas with lighting that eliminates areas of concealment; (3) eliminate areas of dead space; (4) provide solid core doors with deadbolts to all offices and shops; and (5) provide walls and fencing around parking areas.
>
> Provide and maintain fire-retardant landscaping and/or an irrigated buffer zone.
>
> Use construction and design features, which reduce fire potential and/or promote containment (e.g., increased spacing between buildings).
>
> Develop an emergency response plan.

5.3.9. TRANSPORTATION AND TRAFFIC

For the proposed project, the project's contribution to transportation and traffic impacts are not cumulatively considerable and thus not significant because the environmental conditions would essentially be the same whether or not the proposed project is implemented (CEQA Guidelines 15130). The cumulative transportation and traffic impacts evaluated in this section are located within about one mile of the proposed project and generally include the Boyle Heights area.

5.3.9.1 Cumulative Construction Transportation and Traffic Impacts

Construction impacts at facilities under going Part B permit review and/or remediation activities are expected to be limited to on-site activities. Additional traffic trips are expected due to construction/remediation workers and truck trips for delivery or transport of other materials. These impacts are expected to occur over a period of time and not necessarily concurrently. Impacts from each project will need to be considered on a site-by-site basis. However, cumulative impacts on traffic due to construction or remediation activities at Part B facilities are not expected.

Construction impacts of the related projects within the City of Los Angeles could result in temporary adverse impacts. Cumulative traffic impacts are not expected because the construction activities are not expected to overlap. The largest construction project would be the Sears building renovation and no specific plans have been submitted to the City. Therefore, construction activities are not expected to occur for several years and would not

overlap with other related projects. The construction impacts may be significant but they would be temporary and cease following completion of construction activities.

Construction of the I-710/Atlantic/Bandini Interchange would require reconstruction of the highway facilities. Disruption to the local traffic circulatory system would occur, creating detours. Most construction locations would be subject to traffic disruption for about one year. The construction impacts would be temporary, but in some instances they could be severe. Once the improvements have been completed, there would be improved traffic circulation.

5.3.9.2 Cumulative Operation Transportation and Traffic Impacts

The traffic impacts associated with the continued operation of the ISOCI facility were considered to be less than significant.

Table 5-6 shows the projected level of service and volume to capacity ratios due to general growth in the area. These ratios were calculated assuming an ambient traffic growth rate of one percent per year from year 2005 to year 2020 and no changes in existing intersection geometrics. The general assumption of traffic growth of one percent per year was used because of the lack of specific details on certain projects, e.g., the Sears building renovation. Specific traffic analyses will be required for each specific project.

Cumulative impacts are not expected to result in a change in LOS at the following intersections:

- I-710 NB Ramps/Washington Blvd (a.m. peak hour)
- I-710 NB Ramps/Washington Blvd (p.m. peak hour)
- Lorena St./Olympic (p.m. peak hour)

Several intersections show a change due to long term growth in the area. The change at the following intersections are considered less than significant impacts since free-flowing traffic would continue:

The a.m. peak hour at:

- Downey Rd./Washington Blvd.
- I-710 SB Ramps/Washington Blvd.
- Lorena St./Olympic Blvd.

The p.m. peak hour at:

- I-710 SB Ramps/Washington Blvd.

The changes at the following intersections are considered significant impacts since traffic flow would be adversely impacted:

The a.m. peak hour at:

- Soto St./Washington Blvd. (from LOS D to LOS E)
- Soto St./Olympic Blvd. (from LOS C to LOS E)

The p.m. peak hour at:

- Soto St./Washington Blvd. (from LOS D to LOS F)
- Downey Rd./Washington Blvd. (from LOS E to LOS F)
- Soto St./Olympic Blvd. (from LOS D to LOS E)

TABLE 5-6

CUMULATIVE OPERATIONAL TRAFFIC IMPACTS
LEVEL OF SERVICE ANALYSIS AND VOLUME-TO-CAPACITY RATIOS

INTERSECTION	BASELINE [1]				IMPACTS			
	A.M LOS	Peak Hour V/C	P.M LOS	Peak Hour V/C	A.M LOS	Peak Hour V/C	P.M LOS	Peak Hour V/C
Soto St./Washington Blvd.	D	0.837	D	0.898	E	0.961	F	1.027
Downey Rd/Washington	B	0.616	E	0.915	C	0.703	F	1.049
I-710 NB Ramps/ Washington Blvd.	A	0.461	A	0.474	A	0.526	A	0.543
I-710 SB Ramps/ Washington Blvd.	A	0.527	A	0.553	B	0.602	B	0.632
Soto St./Olympic Blvd.	C	0.788	D	0.827	E	0.901	E	0.949
Lorena St./Olympic Blvd.	A	0.562	A	0.519	B	0.641	A	0.590

Notes: [1] = based on 2005 traffic data.
V/C = Volume to capacity ratio (capacity utilization ratio)
LOS = Level of Service

The cumulative impact analysis indicates that a number of intersections in the area are projected to be operating at Level of Service E or F by 2020, assuming a one percent growth in traffic every year. Therefore, assuming a one percent growth rate per year, a number of intersections in the area may experience additional traffic congestion.

5.3.9.2 Cumulative Transportation and Traffic Mitigation Measures

It is likely that improvements may be required to certain intersections in the Los Angeles/Vernon area due to the projected growth. However, the actual impacts at the various intersections may be altered by actual growth rates, specific project characteristics and configurations, and the types of industries that come in to, or leave the area.

Potential mitigation measures include transportation demand management (TDM) measures, transportation system management (TSM) measures, physical roadway improvements, or a combination thereof. The following lists a variety of possible mitigation measures in priority per LADOT guidelines.

> TDM measures reduce single occupancy vehicle trips and encourage ridesharing and transit use. Individual measures and actions which could be included in a TDM plan include implementation of a carpool/vanpool program, parking management techniques, encourage non-vehicle modes (e.g., bicycling an walking), implement flexible or staggered work hours, and implement site trip generation caps and/or parking caps.
>
> Transit capacity and access improvements would include implementation of local bus shuttles providing access from the project site to bus or rail transit stations, and install bus benches and shelters.
>
> Traffic signal improvements could include additional signals and signal modifications (signal timing, coordination and phasing improvements).
>
> Physical improvements could include turn restrictions, dedicated turn lanes, one-way streets, new roads, roadway widening to add lanes, intersection grade separation, pedestrian grade separations.
>
> Street restriping and parking prohibitions could be implemented which would include restriping to add lanes, protected left turn pockets or free right turn lanes; and parking restrictions daily or during peak hours.

The traffic impacts associated with the continued operation of the ISOCI facility alone were determined to be less than significant. However, general population growth may lead to significant cumulative traffic impacts on local intersections as well.

5.3.10. UTILITIES/SERVICE SYSTEMS

5.3.10.1 Cumulative Utilities and Service Systems Impacts

For the proposed project, the project's contribution to utilities and service systems impacts are not cumulatively considerable and thus not significant because the environmental

conditions would essentially be the same whether or not the proposed project is implemented (CEQA Guidelines 15130). The cumulative utilities and service systems impacts evaluated in this section are located within about one mile of the proposed project and generally include the Vernon area.

Wastewater: Cumulative wastewater impacts are evaluated in Section 5.3.8 above.

Water: Cumulative water demand impacts are evaluated in Section 5.3.8.

Hazardous Waste Generation: A number of the related projects including facilities undergoing Part B permits, have the potential to generate hazardous waste either through remediation activities or through the discovery of contaminated soils. The total amount of hazardous waste generated cannot be predicted at this time because the extent of contamination and the type of remediation activities has not been defined in many cases. The impacts would be considered adverse but not significant since the existing hazardous waste facilities likely have sufficient capacity to handle the one-time deposition of hazardous wastes that would likely be generated, e.g., contaminated soils. The facilities undergoing review of Part B permits treat and recycle hazardous waste. Exide recycles lead batteries and ISOCI recycles used oil. Both of these facilities treat hazardous waste streams into non-hazardous products (lead and oil) and helps to minimize waste that could potentially be placed in landfills.

Non-Hazardous Solid Waste: No substantial increase in non-hazardous waste is expected from the ISOCI or Exide facilities. Non-hazardous solid wastes maybe generated by administrative offices and at residential facilities. The increase in solid waste would be associated with related projects and not Exide. Exide would not be contributing to the incremental increase in solid waste generation so impacts would not be cumulatively considerable.

5.3.10.2 Cumulative Utilities and Service Systems Mitigation Measures

No significant impacts to utilities and service systems were identified so no mitigation measures are required. The cumulative impacts to utilities/service systems are less than significant.

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CHAPTER 6

REFERENCES

References
Organizations and Persons Consulted

CHAPTER 6

REFERENCES

6.1 REFERENCES

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6.2 ORGANIZATIONS AND PERSONS CONSULTED

The CEQA statues and Guidelines requires that organizations and persons consulted be provided in the EIR. A number of organizations, state and local agencies, and private industry have been consulted. The following organizations and persons have provided input into this document.

6.2.1. ORGANIZATIONS CONSULTED

California Environmental Protection Agency,
Department of Toxic Substances Control
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California Department of Transportation
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CHAPTER 7

ACRONYMS AND GLOSSARY

Acronyms
Glossary

CHAPTER 7

ACRONYMS

7.1 ACRONYMS

ACRONYMS	DESCRIPTION
AAQS	ambient air quality standards
AB	Assembly Bill
AB 1807	California Toxic Air Contaminant Program
AB 2588	Air Toxic "Hot Spots" Information and Assessment Act
ACTA	Alameda Corridor Transportation Authority
AIHA	American Industrial Hygiene Association
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
Basin	Southern California Air Basin
Btu	British thermal units
CalEPA	California Environmental Protection Agency
CalOSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CalSites	DTSC listing of potentially hazardous waste sites
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBDMP	California Birth Defect Monitoring Program
CCF	cubic feet
CCR	California Code of Regulations
CERCLA	Comprehensive Environmental Response Compensation Liability Act of 1980
CERCLIS	U.S. EPA List of Hazardous Waste Cleanup Sites
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CIWMB	California Integrated Waste Management Board
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
cp	centistoke
CPR	cardiopulmonary resuscitation
CPUC	California Public Utilities Commission
CUP	Conditional Use Permit
dBA	A-weighted noise level measurement in decibels
DOT	Department of Transportation
DTSC	California Environmental Protection Agency, Department of Toxic Substances Control
EDD	California Employment Development Department
EIR	Environmental Impact Report

EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
FEMA	Federal Emergency Management Agency
GEP	Good Engineering Practice
HAZOP	Hazard and Operability
HRA	health risk assessment
HWMP	Hazardous Waste Management Plan
IDLH	Immediately Dangerous to Life and Health
ISC3	Industrial Source Complex
ISCST3	Industrial Source Complex - Short Term model
ISD	Interim Status Document
ISOCI	Industrial Service Oil Company Incorporated
ITE	Institute of Transportation Engineers
kwh	kilowatt hours
Ldn	day-night average sound level
LOS	Level of Service
LUST	Leaking Underground Storage Tank
LUSTIS	Leaking Underground Storage Tank Information System
MATES	Magnitude of Ambient Toxic Impacts from Existing Sources study
MSDS	material safety data sheets
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NIOSH	National Institute for Occupational Safety and Health
NOx	Nitrogen oxides
NO2	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NRC	National Resource Council
NSPS	New Source Performance Standards
NTP	National Toxicology Program
O3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyls
pH	potential hydrogen ion concentration
PM10	respirable particulate matter
POTW	Publicly Owned Treatment Works
ppm	parts per million
PSD	Prevention of Significant Deterioration
RCRA	Resource Conservation and Recovery Act
RECLAIM	Regional Clean Air Incentives Market
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RMEW	reasonable maximum exposed worker
RMER	reasonable maximum exposed resident
RMPP	Risk Management Prevention Plan

ROG	reactive organic gases (also referred to as volatile organic compounds)
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCHWMA	Southern California Hazardous Waste Management Authority
SLIC	Spills, Leaks, Investigations and Complaints
SOx	sulfur oxides
SO2	sulfur dioxide
SWIS	Solid Waste Information System
SWPPP	storm water pollution prevention plan
T-BACT	Toxics - Best Available Control Technology
TEAM	Total Exposure Assessment Methodology
TRPH	Total Recovered Petroleum Hydrocarbons
TSDF	Transfer, Storage and Disposal Facility
TTLC	Total Threshold Limit Concentration
U.S. EPA	United States Environmental Protection Agency
U.S. FEMA	United States Federal Emergency Management Agency
USGS	United States Geological Survey
V/C	Volume-to-Capacity
VOC	volatile organic compounds

7.2 GLOSSARY

TERM	DEFINITION
Acute	Pertains to a short term exposure (typically 1-hour) to generally high concentrations of pollutants or hazardous materials.
Acutely Hazardous Waste	Any hazardous waste as described in 40 CFR section 261.30(d).
Air Monitoring	Sampling for and measuring of air pollutants in the ambient air.
Air Pollutant	A material in the ambient air that produces air pollution. Common air pollutants are ozone, nitrogen dioxide, particulate matter, sulfur dioxide and carbon monoxide. Air pollution is defined in the California Health and Safety Code as any discharge, release, or other propagation into the atmosphere, and includes, but is not limited to, smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matter, acids or any combination thereof.
Air Quality Standard	The specified average concentration of an air pollutant in ambient air during a specified time period at or above which undesirable health effects may occur. The two sets of air quality standards applicable in Southern California are the National Ambient Air Quality Standards and the California State Air Quality Standards.
Ambient	Existing conditions of air, water, and other mediums at a particular time.
Ambient Air	Any unconfined portion of the atmosphere; the outside air.
Ambient Air Quality Standards (AAQS)	Specified maximum average concentrations of pollutants over stated lengths of time, allowed by air quality regulations of local, state, or federal agencies. State of California standards are referred to in this document as California AAQS. National standards are called NAAQS.

Area Source	A type of source which releases emissions throughout an "area", also know as a fugitive source.
Aquifer	A geologic formation, group of formations or part of a formation capable of yielding a significant amount of groundwater to wells or springs.
Berm	An embankment or ridge of either natural or manmade materials used to prevent the movement of liquids, sludges, solids or other materials.
Carcinogen	A substance that induces cancer from either acute or chronic exposure.
Carcinogenic	Cancer producing.
Chronic	Long-term exposure (typically one year in length) to generally low concentrations of pollutants or hazardous wastes.
Container	Any device that is open or closed, and portable, in which a material can be stored handled, treated, transported, recycled or disposed of.
Conditional Use Permit	A discretionary permit issued by cities, which is required for certain projects that are allowable by special permit only. A conditional use permit imposes conditions on a project which are designed to assure that the project is compatible with the local general plan and zoning ordinances and that adverse impacts to neighboring land uses are minimized. Same as County "Site Approval".
Contingency Plan	A document setting out an organized, planned and coordinated course of action to be followed in case of fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.
Criteria Pollutants	Air pollutants for which the federal or state governments have established ambient air quality standards, or criteria, for outdoor concentration in order to protect public health, e.g., nitrogen dioxide, sulfur dioxide, particulate matter, ozone, and lead.

Discharge	The accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying or dumping of hazardous waste into or on any land or water.
Disposal	The discharge, deposit, injection, dumping, spilling, leaking or placing of any hazardous waste into or on any land or water.
Disposal Facility	A facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure.
Emission Standard	The maximum amount of a chemical permitted to be discharged from a single source.
Emission Thresholds	A specified emission level for use by local government planners, to determine if emissions from a particular project could have a significant impact on air quality.
Emissions	The mass of a specific material released to the atmosphere.
Environmental Impact Report (EIR)	A detailed statement, prepared pursuant to the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the adverse effects. The term "EIR" may mean either a draft or final EIR, depending on the context.
Environmental Protection Agency (EPA)	The federal agency responsible for coordinating pollution control activities at the federal level and for carrying out the terms of the federal Clean Air Act, Clean Water Act, and Superfund laws, among others. The EPA operates through regional offices located throughout the country. California is the responsibility of Region IX, which is headquartered in San Francisco.
Epidemiological	The incidence, distribution and control of a disease in the human population.
Filtration	Separating liquids and solids by passing suspensions through various types of porous materials.

Flammable/Ignitable	Materials which will burn below 140 degrees Fahrenheit, either spontaneously or through contact with already flaming material.
Fugitive Emissions	A description of how pollutants are released throughout an area in contrast to a specific point, like a stack.
Generator	The person or facility who, by nature or ownership, management, or control, is responsible for causing or allowing to be caused, the creation of hazardous waste.
Ground Level Concentration	Refers to the concentration of a pollutant at ground level where individuals can be exposed.
Groundwater	Defined by the State Water Resources Control Board to mean water found below the land surface in a zone of saturation; it is distinct from surface water.
Hazard Index	A term used to quantify the impact (non-carcinogenic) of the exposure to more than one pollutant on a relative scale.
Hazardous	Has the capability of either causing or significantly contributing to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or posing a substantial present or potential risk to human health or the environment
Hazardous Waste	A waste, or combination of wastes, which because of its quantity, concentration, physical chemical, or infectious characteristics may either: (a) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or (b) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed.
Hazardous Waste Control Act	A California law, enacted in 1972, which was the first comprehensive hazardous waste control law in the United States. It established the state's hazardous waste

	management program within the Department of Health Services.
Hazardous Waste Facility	Any structure, other appurtenances and improvement on the land, and all contiguous land used for the treatment, transfer, storage, resource recovery, disposal, or recycling of hazardous waste.
Health Risk Assessment	A conservative analysis of the potential health risk impacts associated with exposure to emissions of toxic air contaminants.
Inhalation Pathway	A route of exposure by a chemical or pollutant by inhaling the pollutant into the body.
Ingestion Pathway	A route of exposure by a chemical or pollutant taken in by way of the digestive tract into the body.
Interim Status	The authorization granted by the CalEPA DTSC which allows a facility to continue to operate pending review and decision of a facility's permit application.
Interim Status Document (ISD)	A temporary permit given to hazardous waste transfer, storage, and/or disposal facilities pending full permitting under RCRA.
Lead Agency	The public agency which has the principal responsibility for carrying out or approving a project. The lead agency will decide whether an Environmental Impact Report or Negative Declaration will be required for a hazardous waste management project and will cause the document to be prepared (under the California Environmental Quality Act).
Modeling	A general term applied to the mathematical approach in describing the spatial distribution of pollutant(s) from a release into the environment.
Material Safety Data Sheet (MSDS)	Sheets containing chemical safety information that is supplied by chemical manufactures.
Non-carcinogenic	Not cancer producing.

Off-site Treatment	Treatment of waste at a site physically separate from the site where the waste was generated.
Permitted Facility	A facility that has received a Hazardous Waste Facility Permit from the CalEPA DTSC in accordance with the California Health and Safety Code, Section 25200.
pH	A measure of the acidity or alkalinity of a liquid. The scale indicates neutrality at 7; acidity is indicated by numbers below 7, down to zero. Alkalinity is indicated by numbers above 7, up to 14.
Plume	Refers to the shape or form of a substance as it exits a stack or point source. May or may not be visible.
Potency Slope	A factor used to theoretically determine the probability of extra cancer cases occurring in the exposed population assuming a 70 year lifetime exposure.
Point Source	A term used to designate how pollutant(s) are released into the atmosphere. Point sources have release velocities and temperatures associated with them. Pollutant(s) are released from a specific point source.
Reasonable Maximum Exposed Worker (RMEW)	An individual located in an industrial/commercially zoned area (off-site) where there is a maxima for cancer risk as determined by modeling.
Reasonable Maximum Exposed Resident (RMER)	An individual located in a residential area where there is a maxima for cancer risk as determined by modeling.
Reference Dose (RfDs)	Used as an indicator of potential non-carcinogenic adverse health effects. Generally RfD's are based on the most sensitive adverse health effect reported in technical literature and includes a margin of safety. Exceeding an RfD does not automatically indicate a health impact.
Resource Conservation and Recovery Act (RCRA)	A federal act that gives the U.S. EPA the authority to develop a nationwide program to regulate hazardous wastes from "cradle-to-grave". Enacted in 1976, the act was established to protect human health and the environment from the improper handling of solid waste and encourage resource conservation.

Recycling	Refers to the use or reuse of a waste as an effective substitute for a commercial product, or as an ingredient or feedstock in an industrial process. It also refers to the reclamation of useful constituent fractions within a waste material and or removal of contaminants from a waste to allow it to be reused.
Risk	A measure of the likelihood and the severity of injury.
Risk Management and Prevention Program (RMPP)	All of the administrative and operations programs which are designed to prevent acutely hazardous materials accident risks, including, but not limited to, programs which include design safety of new and existing equipment, investigation procedures, risk assessment for unit operations, operating alternatives, emergency response planning and internal or external audit procedures to ensure that these programs are being executed as planned.
Run-off	Any rainwater, leachate or other liquid that drains over land from any part of a facility.
Sensitive Receptors	Refers to sensitive populations such as children, athletes, elderly, and sick, that are more susceptible to the effects of air pollution than the population at large.
Source	Any particular individual or group of organisms, mechanisms, devices, structures, installations, operations, facilities, or processes that emit air pollutants.
Southern California Association of Governments (SCAG)	The organization, known in federal law as a Council of Governments, representing Los Angeles, Ventura, San Bernardino, Riverside, Orange, and Imperial Counties and the cities of the six counties.
Southern California Hazardous Waste Management Authority (SCHWMA)	An agency within an eight county region, responsible for and receiving State funding for regional plan

	development. It came into being in 1985, with the counties of Imperial, Orange, Riverside, San Bernardino, Santa Barbara, San Diego and Ventura and representative agencies of cities in the region joining as members, working jointly to improve hazardous waste management in the region. The County of Los Angeles is not a member, but participates as an observer. The City of Los Angeles and other cities in Los Angeles County are members.
Siting Criteria	Factors which must be met to determine the physically appropriate site or area for the location of a hazardous waste management facility as identified in a county hazardous waste management plan.
Stack	A type of point source used by a facility to release pollutant(s) into the atmosphere through a duct, "smoke stack", or exhaust port.
Stack Tip Downwash	A phenomena caused when wind blows past a stack producing wake effects and wind turbulence (see downwash).
Stationary Sources	Those sources that emit pollution from equipment, or industrial or commercial processes. There are two types of stationary source emissions, those from area sources (e.g., water heaters, consumer products, architectural coatings, etc.) and point sources (e.g., boilers, refinery flairs, etc.)
Storage	The containment of hazardous wastes, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal or use of such hazardous waste.
Tank	A stationary device designed to contain an accumulation of liquid substances which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.
Toxic	Any material which, either directly or indirectly, may constitute a hazard to life or health, either temporary or permanent, from exposure by contact, inhalation, or ingestion.

Toxic Air Contaminant	Air pollutants which may cause cancer or contribute to an increase in mortality or severe illness, or which may pose a potential hazard to human health.
Toxicity	Potency of a toxic contaminant.
Toxicological	Relating to a science that deals with poisons and their effects.
Toxics	Air pollutants that are carcinogens or produce acute effects. Toxic air pollutant thresholds are based on a quantative risk assessment rather than ambient air standards as with criteria pollutants.
Transporter	A person engaged in the off-site transportation of hazardous wastes by air, rail, highway or water.
Treatment	Any method, technique or process, including neutralization, designed to change the physical, chemical or biological character or composition of any hazardous waste so as to neutralize such waste; to recover energy or material resources from the waste; to render such waste non-hazardous or less hazardous; to make it safer to transport, store or dispose of; to make it amendable for recovery or storage; or to reduce it in volume.
Unit Risk Factor	The estimated probability of a person contracting cancer as a result of constant exposure to an ambient concentration of 1 ug/m^3 over a 70 year lifetime.
Vacuum Truck	A cargo tank which has the capability of being subjected to a vacuum or a pressure for purposes of leading and unloading its contents.
Volume Source	A type of source which releases pollutant(s) area wide such as a building roof monitors and conveyer belt lines.